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THE JOURNAL

OF

MENTAL SCIENCE

(Published by Authority of the Medico-Psychological Association).

EDITED BY

HENRY MAUDSLEY, M.D.,

AND

THOMAS S. CLOUSTON, M.D.

“Nos vero intellectum longius a rebus non abstrahimus quam ut rerum imagines et
radii (ut in sensu fit) coire possint.”

FRANCIS BACON, *Proleg. Instaurat. Mag.*

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"IN adopting our title of the *Journal of Mental Science*, published by authority of the *Medico Psychological Association*, we profess that we cultivate in our pages mental science of a particular kind, namely, such mental science as appertains to medical men who are engaged in the treatment of the insane. But it has been objected that the term mental science is inapplicable, and that the terms, mental physiology, or mental pathology, or psychology, or psychiatry (a term much affected by our German brethren), would have been more correct and appropriate; and that, moreover, we do not deal in mental science, which is properly the sphere of the aspiring metaphysical intellect. If mental science is strictly synonymous with metaphysics, these objections are certainly valid, for although we do not eschew metaphysical discussion, the aim of this Journal is certainly bent upon more attainable objects than the pursuit of those recondite inquiries which have occupied the most ambitious intellects from the time of Plato to the present, with so much labour and so little result. But while we admit that metaphysics may be called one department of mental science, we maintain that mental physiology and mental pathology are also mental science under a different aspect. While metaphysics may be called speculative mental science, mental physiology and pathology, with their vast range of inquiry into insanity, education, crime, and all things which tend to preserve mental health, or to produce mental disease, are not less questions of mental science in its practical, that is, in its sociological point of view. If it were not unjust to high mathematics to compare it in any way with abstruse metaphysics, it would illustrate our meaning to say that our practical mental science would fairly bear the same relation to the mental science of the metaphysicians as applied mathematics bears to the pure science. In both instances the aim of the pure science is the attainment of abstract truth; its utility, however, frequently going no further than to serve as a gymnasium for the intellect. In both instances the mixed science aims at, and, to a certain extent, attains immediate practical results of the greatest utility to the welfare of mankind; we therefore maintain that our Journal is not inaptly called the *Journal of Mental Science*, although the science may only attempt to deal with sociological and medical inquiries, relating either to the preservation of the health of the mind or to the amelioration or cure of its diseases; and although not soaring to the height of abstruse metaphysics, we only aim at such metaphysical knowledge as may be available to our purposes, as the mechanician uses the formularies of mathematics. This is our view of the kind of mental science which physicians engaged in the grave responsibility of caring for the mental health of their fellow men, may, in all modesty, pretend to cultivate; and while we cannot doubt that all additions to our certain knowledge in the speculative department of the science will be great gain, the necessities of duty and of danger must ever compel us to pursue that knowledge which is to be obtained in the practical departments of science, with the earnestness of real workmen. The captain of a ship would be none the worse for being well acquainted with the higher branches of astronomical science, but it is the practical part of that science as it is applicable to navigation which he is compelled to study."—*J. C. Bucknill, M.D., F.R.S.*

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PART 1.—ORIGINAL ARTICLES.

The Morisonian Lectures on Insanity for 1873. By the late DAVID SKAE, M.D., F.R.C.S.E., Physician-Superintendent of the Royal Edinburgh Asylum, &c., &c. Edited by T. S. CLOUSTON, M.D., F.R.C.P.E.

(Continued from page 507, Vol. xix.)

LECTURE III.

The forms of insanity which we passed under review, with the exception of the epileptic insanity, were all more or less connected with the organs and function of generation, and the next five forms are also of the same class. The first three, as you will see by a reference to the table, are connected with child-bearing—the Insanity of Pregnancy, of Parturition (or puerperal insanity), and of Lactation.

These three forms of insanity, intimately connected as they are etiologically, present, as we might expect, a certain similarity within certain limits in their symptoms; yet each presents a group of symptoms so characteristic and peculiar that each might be described by its natural history as a distinct form, and at the same time be referred to its origin for a name.

A cursory review of the three forms of insanity named will, I think, justify this statement, and show how this method of classification is justified by its results.

My friend, Dr. John B. Tuke, took up this form of insanity with special reference to my classification, and his able papers on the subject, in the “*Edinburgh Medical Journal*” for 1865 and 1867, have fully established the positions I have claimed, and from them I shall quote freely in the remarks I am about to make.

The *Insanity of Pregnancy* most frequently occurs in the case of women who have married late in life, and whose first confinement has taken place between the ages of 30 and 40. The symptoms are mostly those of melancholia, or of melancholia with dementia. "In no form of insanity," says Dr. Tuke, "is the suicidal tendency so well marked; 13 patients"—out of 28—"had either attempted or meditated suicide. In some the attempts were most determined, a loathing of life and an intense desire to get rid of it being the actuating motives. In the melancholic cases we can frequently trace back the delusions to the morbid fears, restlessness, capriciousness, and irritability of the pregnant woman, which becoming exacerbated, amount to actual insanity, and prompt the unhappy victim to self-destruction." "Moral insanity is by no means an unfrequent one of the varied symptoms this name implies or includes; dipsomania is the most common one in the cases under notice." This morbid and insane craving for stimulants, occurring generally in the earlier months of gestation, is probably, as Dr. Tuke observes, only an aggravated form of the well known craving or longing for particular articles of food, which characterises the earlier months of pregnancy. As it advances it increases in intensity, and gives rise to actual delusion and attempts at suicide. In two cases the moral perversion was evinced by a homicidal impulse.

This disease is not an incurable nor a fatal one. The recoveries are 70 per cent., and the remaining cases either pass into dementia, or have maniacal attacks after parturition, and then become demented, or die of phthisis or some other bodily disease.

Puerperal Insanity is a disease occurring within the month, or by a little latitude it may be extended to cases within six or eight weeks after confinement. The risk of puerperal insanity is greatest between the ages of 30 and 40, and in primipara, as in the last form. The danger of its recurrence diminishes with each successive pregnancy. It does, however, tend to recur, and it seems to predispose the woman to other forms of insanity. The hereditary predisposition is very constant, and is more easily ascertained than in most other insanities.

All cases of puerperal insanity, when melancholia is the prevailing symptom, are cases where the insanity developed itself 16 days or more after labour. All cases developed before the 16th day evinced maniacal symptoms. "Dementia

and melancholia characterise the derangement appearing towards the end of the month after labour," and this is the most incurable form of the disease.* Of the 73 cases analysed by Dr. Tuke, from the Asylum records, he says, "Mania, which was the first symptom in 57 cases out of the total of 73, as a rule was violent, the patient being noisy, restless, sleepless, and occasionally afflicted with hallucinations of the various senses. The suicidal tendency was strongly marked, 25 patients having either attempted, or expressed a design to commit, self-destruction. As a rule, however, this propensity did not last long, but abated with the violence of the symptoms. The suicidal tendency of the puerperal differed also from that of the pregnant patient in assuming the character more of impulse than the result of a perverted train of thought.

"In three violent cases of puerperal mania, I have noticed an extraordinary amount of salacity, a very few days after labour; masturbation was excessive in all these patients, but whether this was the result of the irritation consequent on the labour causing perverted sensation or actual salacity, I cannot say." I look on this symptom as purely reflex in those cases.

Hereditary tendency was ascertained in 22 of the cases. In 23 the labours were complicated, showing how much this cause—along with other causes, such as loss of blood—tends to the development of this disease.

The recoveries were 76.7 per cent., and the only two fatal cases of puerperal insanity in the Asylum Records were two, in which the symptoms were those of the puerperal paraphrenitis (*sic*) of W. Hunter. Recovery generally takes place within 3 to 6 months, and after nine months the prospect gets unfavourable. Dr. Tuke says (Op. Cit.), "Within my own experience the following is the most usual train in cases who recover their reason. Within three weeks, or more frequently earlier, the mania gradually subsides, and is replaced by a state of dementia, generally accompanied by delusions, which almost invariably assume the form of *mistaken identity*. These gradually disappear, leaving a haziness of apprehension, and a state suggesting the idea of waking from a dream." The patient can now be induced to work, and she progresses steadily in strength of body and of mind towards complete recovery.

* Dr. Tuke, Op. cit., 1865, p. 1021.

This symptom of making mistakes as to the identity of individuals, although occasionally met with in other forms of insanity of a sexual type, is certainly nearly peculiar to puerperal cases, and very characteristic. The patient, the doctor, or any stranger who comes near her is addressed by a familiar name, *e.g.*, "Oh, John, is that you?" "Eh, Mr. Smith, I am so glad to see you, sit down," and so forth. Any such utterances from a young woman in bed, with perspiration on her skin and general restlessness, would be almost pathognomonic of the puerperal origin of her insanity.

On the subject of diagnosis Dr. Tuke makes this remark in his paper—"It has been said by no less an authority than Dr. Gooch that no physician could, by simply looking at and examining a patient, diagnose that hers was a case of puerperal insanity, unless her history was at the same time afforded to him. This I take the liberty of doubting, and will instance a case in point. A woman was brought some months ago to the Royal Edinburgh Asylum, by the police, under a certificate of emergency, in a highly maniacal condition. No information could be afforded, further than that she had been found in this state by the police, and had been at once removed to the Asylum. There was no other evidence whatever, but the physicians who saw her on admission, before she was taken to the ward, came to the conclusion that she was suffering from puerperal mania. Within a few days the Inspector of Poor of her parish informed them that she had been confined five days previous to her admission."

"The puerperal maniac has symptoms which, as a rule, cannot be mistaken for any other form of insanity, with perhaps one exception—*mania à potu*; but even here there are points of diagnosis which are very prominent. The bodily symptoms are in direct variance with the mental. She is pale, cold, often clammy, with a quick, small, irritable pulse, features pinched, generally weak in the extreme, at times almost collapsed-looking. But withal she is blatantly noisy, incoherent in word and gesture; she seems to have hallucinations of vision, staring wildly at imaginary objects, seizes on any word spoken by those near her, which suggests for a moment a new volume of words; catches at anything or anyone about her, picks at the bed-clothes, curses and swears; will not lie in bed, starts up constantly, as if vaguely anxious to wander away; and over all there is a characteristic obscenity and lasciviousness. Suicide is often attempted, but in a manner which shows that it is not the result of any

direct intention. She may wildly throw herself on the floor, attempt to jump from the window, or draw her cap-strings round her throat; but there is no method about it—it is an impulse, the incentive of which is purely abstract.”

The homicidal influence to destroy the newly-born infant is much more frequently carried into effect than the suicidal. In almost every case of puerperal insanity there is some morbid change in the maternal feeling towards the child. The mysterious sympathy between the mother and child, which is at its strongest at this very time, is lost; she looks on it with aversion, asks it to be removed—she is afraid, although she may not say so, that she may injure it. She feels some horrible impulses in her mind, and fears she may not be able to control them, and most probably if the child is not immediately removed, she will destroy it.

I may give two cases in illustration, in both of which the commission of the act seemed to exercise a peculiar power in modifying the symptoms.

Mrs. R., the wife of a spirit dealer, three days after her confinement, began to rave, calling out that there were people under the bed—that the bed was on fire. In the middle of this raving she caught hold of her child and deliberately cut its throat with a knife, the child dying immediately. She was sent out to the asylum without any delay, where we could not see any symptoms of insanity about her, except that she seemed unconscious of what she had done, and hoped nothing had happened to her bairn. She was quiet, industrious, and correct in her conversation and habits. It looked as if her homicidal act had shaken reason back to its place.

The other case was that of a young woman, of 21, the wife of a tradesman. Her sister and maternal aunt were insane, the latter having been three times in an asylum under treatment.

“During the fifth month of her first pregnancy she became very low spirited and depressed. She attempted suicide by drowning, but did not succeed in her intention, from the shallowness of the water, although she persevered for several hours. The attempt was made in the sea, when the sands were not deeply covered, and extended so far out as to make it difficult or impossible for her to reach deep water, so that as the tide receded she was always left high, if not dry, after each effort to effect her purpose. From this melancholy state she partially recovered, and her baby was born in due course. Eleven weeks after the birth she

deliberately strangled it, and then attempted to poison herself with laudanum. At the instance of the Procurator Fiscal she was visited in prison on various occasions by Professor MacLagan and myself. We found her always happy and contented, exhibiting signs of a morbid exaltation, talking of the prison being a palace for her, and at times being mildly excitable. She was now removed to the asylum, where, on admission, she seemed perfectly happy, made herself quite at home, and settled at once to work. Her mind was evidently very weak, she was facile and reserved. A few weeks after admission I got her to converse about her child, and her motives for destroying it. She was not in the least confused, nor did she seem to appreciate her position. She said that her impression at the time was that it would be happier if it was dead, and that she attempted suicide so that her husband might not be tainted with having a murderess for his wife. She expressed no remorse nor regret. She continued in this state for nearly two months, when she again became depressed and melancholy, crying bitterly at times, as she said, about her child, but in no way alluding to her own guilt. She soon recovered her cheerfulness and enjoyed all the amusements, and worked industriously, steadily, and actively. Menstruation was re-established, and in six months she was discharged recovered. Two years afterwards she passed through her second confinement without a bad symptom, and made a good and perfect recovery.”*

Insanity of Lactation.—So much for the insanity of pregnancy and of child bearing. The insanity of *Lactation* remains to be noticed, to complete this group. It is eminently a variety of asthenic insanity, and may be very shortly described.

It mostly occurs in females upwards of 30 years of age, and most frequently in those who have borne and nursed several children, or if a first confinement, have been debilitated by hæmorrhage. The insanity is ascribed to over nursing. No definite period can be fixed on to limit the term of nursing within safety to the mother. One woman

* It is important practically, and interesting physiologically, that perfect mental recovery almost never takes place until the menstrual function is restored and regular, and the sooner it takes place the better is the prognosis. If any further proof were needed than have been given of the soundness of the principle that the various forms of insanity are intimately connected with the state of other bodily functions, taking their origin and shape and departure in this way, this fact would confirm it strongly.—T. S. C.

may nurse a boy till he is 12 or 15 months old and runs after her for a drink, before she succumbs to the debilitating influence of such a drain on her system. Another, already debilitated it may be by repeated child bearing and nursing at short intervals, or by hæmorrhage, or other causes, may suffer from this insanity within five or six months after her delivery.

The symptoms are either those of acute mania of an evanescent type, or more frequently of melancholia, and, in a very few cases, of dementia—in the proportion, in my experience, of nearly one-fifth of the former, nearly four-fifths of the second, and a tithe of the third. The premonitory symptoms are generally headache, tinnitus aurium, flashes of light before the eyes, sense of constriction round the head, præcordial anxiety, dragging pains in the pelvic region.* The maniacal symptoms are generally acute but evanescent; they rarely last more than ten or fourteen days, and are gradually attended with hallucinations of the different senses, and delusions (as in puerperal mania) of mistaken identity.

“The melancholia,” says Dr. Tuke, “which characterises the insanity of lactation is of various degrees of intensity; but where a suicidal tendency is evinced, the attempts to carry out the purpose are most determined. Occasionally the duration of the attack is not greater than three weeks or a month, and in such cases a degree of hysteria is generally present.”

“In almost all cases of insanity of lactation which have come under my notice during the last two years, exophthalmia and *bruit de diable* have been marked symptoms, increasing in intensity with the periods of nursing. As the bodily symptoms disappeared so did the mental, such cases almost always recovering.”†

Of Dr. Tuke’s 54 cases, 39 recovered, 12 became demented, one died, and two remained under treatment.

I trust I have made out a case for these three forms of insanity,—all having an etiology to a certain extent common, all having a common type of symptoms, but each presenting such peculiarities as to distinguish it from the other, and each in the totality of the symptoms such as to indicate the probable cause, even were it not previously known.

* Those physical symptoms of an ill-nourished and exhausted brain are more constant in this form of insanity than in any other, and should certainly never be neglected in any case.—T. S. C.

† Op. cit.

Climacteric Insanity.—The next form of insanity in my Table is *Climacteric Insanity*. I recognise it as existing both in the male and in the female. In the latter, as is well known to all of you, it occurs at the period of the cessation of the catamenia, between 40 and 50 years of age, the critical period of life—the grand climacteric.

But the man has, between 50 and 60 years of age, his critical period too—his grand climacteric as well as the female. I have had this assertion challenged by authorities for whom I have the highest respect, on the ground that I cannot point to any physiological change in the male corresponding to that which takes place in the female at her critical period. To this my answer has been—First, that such a climacteric period in the male has been recognised by such eminent authorities as Sir Henry Holland, Dr. Conolly, and many others whom I might cite; secondly, that it is a matter of common parlance and observation among non-medical men about this period of life to say that they have passed through their climacteric; that they have had a great trial; they have passed through severe mental trials, and such like phrases. Thirdly, that a form of insanity does certainly manifest itself at this time of life, in which the symptoms as a group and even individually are almost identical with those met with in the female at her critical period. Fourthly, I venture, with deference to the experience of others, on a question broached here probably for the first time—at least for the first time as far as I know—to assert that there is a great and fundamental change comes over the male at the period referred to in regard to his sexual organs and desires. While leading a chaste life he ceases to be liable, under the absence of any temptation, to lascivious dreams and seminal emissions during sleep. I do not for a moment assert that men are sexually impotent, or women either, at that age or for many years afterwards; but I believe that the sexual desires do not proceed primarily from the sexual organs—from the periphery of that chain of nerves—but that they proceed from the central organs of the nervous system to the periphery. If man is sensual in his sexual desires after that period of life, it is the result of *erotic* ideas in the higher sense of meaning of that much abused word. He loves the woman first—the Psyche;—the sexual desire is the ultimate, not the primary element of his passion. I believe it is the same with women too.

Be this as it may, and founding upon my first three reasons,

I venture to describe this Climacteric Insanity very briefly as a disease affecting both sexes, the female between 40 and 50, and the male between 50 and 60 years of age, or nearly so, and producing in each similar symptoms, which may be briefly described as follows:—

“The first observable symptom of this disease are frequent fits of depression of spirits, gradually becoming more permanent. Alternating with those fits of depression, there are periods during which the patient is restless, morbidly sensitive, and extremely irritable. As the depression passes into confirmed melancholia, it is associated with suspicion of others, fear of impending but undefined evil—fear of the soul’s loss, refusal of food, and not uncommonly persistent delusions, hallucinations of the senses, and determined suicidal tendency. In some cases there are transient paroxysms of excitement more or less maniacal, during which the patient is dangerous to others; but distinct homicidal impulse is rarely met with, while monomania of pride or delusions of exaltation are still more uncommonly seen. It is somewhat curious to remark that, in this form of insanity, the majority of the patients more or less readily admit that they are insane; they rarely if ever complain of being considered insane, and placed in an asylum; on the contrary, many of them express a sense of security at being placed in an asylum; and a fear of being left to themselves not unfrequently induces such patients to place themselves under treatment; and it is by no means rare to hear them remonstrate with the physician on being told that they are well enough to go home, and say that ‘although they feel well enough in the asylum they are *afraid to trust themselves at home in case something should befall them.*’”*

One of the most strikingly characteristic and peculiar symptoms of climacteric insanity, both in the male and female, is the *fear of undefined evil*. “This symptom was present in one-third of the female cases, and in three-fourths of the male cases,” in 45 out of 60 cases. This fear of some impending unknown evil gives rise to a very peculiar expression of terror in the patient’s face, accompanied by a shrinking, startled manner, with great sleeplessness and restlessness. Although it would appear to be more common among men, the terror is not in them of such an intense kind as is seen in women. In men this fear seems to add very much to the

* “Ed. Med. Journal,” 1865.

general gloom and despondency ; but it does not, as in women, take such complete possession of them as to make them shriek loudly for help, or crouch trembling in a corner, moaning and wringing their hands. One of the most common and characteristic evidences of this fear is the use of such expressions as ‘When are you going to do it?’ ‘When will it be?’ ‘I wish it was over.’ ‘Isn’t it awful?’ I have frequently asked patients to describe this fear, or rather to say what they were afraid of, and they appeared quite unable to do so, further than to say that there was ‘something awful hanging over them,’ or ‘they felt some terrible thing was going to come upon them.’ Some, however, described this fear as the dread of some unknown but terrible death they sooner or later must die.

“The dread of this unknown form of death was so great, that it induced three patients, who were continually oppressed by it, to attempt suicide, yet none of them could describe the form or mode of death the fear of which was so terrible. Fear of undefined evil is often accompanied by, but is quite distinct from, the fear that the soul is lost. This is also a very common symptom of this form of insanity.”

I shall not go into detail to describe more fully this or the other symptoms of climacteric insanity, the suicidal impulse, the occasional homicidal tendency, the refusal of food, suspicion of friends, and the hallucinations of the senses ; but refer you to a full description of this disease, both in the female and in the male, to two papers published in the “*Edinburgh Medical Journal*” for 1865, by my son, Dr. Francis Skae, and from which I have freely quoted.

I conclude with another citation : “The foregoing mental symptoms, occurring as a *group*, are, I think, perfectly characteristic of climacteric insanity. They are identical in the male and in the female, and they are met with in a group only in that form of insanity which occurs at the climacteric period in both sexes.”

Ovario-mania.—The next form of insanity on my Table is one also connected with the sexual organs ; but it is the last of the series. I have called it *ovario-mania* ; it has been denominated by other observers before me *utero-mania* ; I prefer the former name.

There are a great number of female patients to be found in private, and especially in consulting practice, who have anomalous symptoms, more or less connected with the sexual

passion. I do not include in this list cases of an hysterical type exactly, but cases where there are well marked and fixed delusions of a sexual type. Unmarried women, mostly—indeed, I often call it old maids' insanity—they imagine their clergyman has made love to them, has attempted to seduce them, or to poison them because they would not be seduced, that their medical attendant has played the same game. Under the excitement produced by such delusions, or from complaints lodged by them with the Presbytery or other public functionaries against these seducers, a number of such females land in our asylum. I had occasion to count them at one time. The doctor of a highly respectable hydropathic establishment in the south of England was charged with having had repeated connection with one of his boarders, whose husband brought an action of damages against him, and one of divorce against her. He denied the charge entirely, and wrote to me to ask if such a delusion was common, and how many patients I then had under my care who laboured under similar belief. On making inquiries I found that out of about 250 females, the majority of whom were demented, there were 23 who firmly believed that men had sexual intercourse with them every night. The doctor asked me to hold myself in readiness to appear as a witness if telegraphed for, but the charge against him was abandoned.

I have long believed that all such cases are connected with diseases of the ovaries or neighbouring parts acting on them by direct irritation, and by reflex action on the nervous centres. I have uniformly found such disease in every case where I have had an opportunity of making a post-mortem examination.

Dr. Stethill Wright has published a very good case in illustration of this form of insanity in the "Edinburgh Medical Journal" for 1871, where the disease was cancer of the ovaries, uterus and omentum. The symptoms were such as I have indicated, restlessness by day and night; she averred that spirits, whom she saw, were tearing her entrails, to which they gained admission by the vagina, and that persons unknown violated her person during the night. With various remissions this female died, but up to the last maintaining that spirits and other unknown agents regularly violated her person.

In connection with this case I may mention another which shows how the locality of a disease localises the delusion. It was that of a female who complained most piteously for

many months that she was violated repeatedly every night through the rectum. On examination after death we found extensive cancer of the rectum.

Hypochondriacal Insanity.—I have ventured to add at this point in my table a form of insanity which I omitted in my first table. It is one which I think has been recognised very generally in practice, although not appearing in our printed tables, or annual reports. The form I refer to is hypochondriacal insanity. Hypochondriasis, with its protean symptoms perpetually revolving round the centre ego, is familiar to us all, and so also must, those same symptoms be to most of us, when they so far master their unhappy subject as to leave him no longer master of himself, and he believes in such delusions, such bodily pains, ailments, changes destructive of his nerves, of his sleep, of his muscular power, or power to do anything, except to take medicine, as unfit him to manage his own affairs, to regulate his own conduct, almost to pass muster with even a passing spectator, as a rational being. I think this form of insanity needs no further illustration; it is a disease of advanced life and of idle men, whose earlier habits have been more or less sensuous, or at least luxurious. It is at best a tedious and not always a curable malady.

Senile Insanity.—This is a form of insanity doubtless connected with those changes in the vessels and the circulation of the blood within the cranium which take place after a certain period of life. This period varies in different individuals; in some indications of these changes may be observed in persons under the age of 60, in impaired memory and altered habits; in others not until an extreme old age. I have known a lady who, at the age of 105, was in the full possession of her memory and all her mental faculties; and I need not refer to our eminent judges—the Lords Lyndhurst and Brougham, and Dr. Lushington—and a host of others to prove that the circulation through the brain may preserve its integrity up to a great age, so far as the functions of that organ are concerned.

But in ordinary circumstances the memory, of recent events especially, begins generally to be impaired about the age of 70 or 75. Sometimes sooner, as I have said, and in such cases probably accelerated and precipitated by habits of free living, there being no doubt that habitual hard drinking produces effusion under the arachnoid, also one of the morbid

effects of the atheromatous arteries of old age. It is to this atheromatous state of the arteries, causing serous effusion and absorption to a corresponding extent of brain substance, that we owe that series of symptoms comprehended under the name of *Senile Insanity*.

I need scarcely describe senile insanity to you; engraft a little excitement and extra-troublesomeness, a few more foolish fancies, and waywardness on the impaired memory gradually increasing, the garrulity passing into childishness, and this second childhood passing more or less rapidly into total fatuity "and mere oblivion—sans teeth, sans eyes, sans taste, sans everything,"—("As You Like It")—and you have the disease.

Phthisical Insanity.—The next form of insanity on my Table is that of *Phthisis*. The frequency of phthisis among the insane has been long remarked. Esquirol and Georget in France, Burrows and Ellis in this country, were the first to refer to the frequency of phthisis pulmonalis among the insane. My predecessor, Dr. McKinnon, in his last report for 1845, and myself in a succession of reports following, pointed out its great frequency. Dr. Clouston undertook to investigate the subject in 1863, and he did so in a most efficient manner, producing matter of much interest to the psychologist, and reflecting the highest credit upon his own industry and penetration.*

Dr. Clouston starts his inquiry by a careful investigation as to the relative frequency of tuberculosis among those dying insane, and those dying in general hospitals. He found an enormous difference, two-thirds of the cases who died in the Royal Edinburgh Asylum having had more or less tuberculosis—the cases in general hospitals not exceeding one-half.

He concludes this branch of the subject thus—"Whether, therefore, we take phthisis as the assigned cause of death, or tubercular deposition in the body, tuberculosis is much more common among the insane than among the sane."

That there is a special connection between insanity and tuberculosis is almost conclusively proved by these facts.

Van der Kolk thinks that a hereditary predisposition to phthisis may develop itself into outward insanity, and *vice versa*. I have no doubt of it, and I have remarked, moreover, in well-marked cases of phthisical insanity, that an attack of

* "The connection between Tuberculosis and Insanity." By T. S. Clouston, M.D., "Journ. of Ment. Science," 1863.

hectic fever, cough and hæmoptysis is often followed by a temporary remission of the insanity, while the passing off of the signs of tubercular deposit was followed by a recurrence of the symptoms of insanity, the two conditions in that active state being apparently vicarious.

The mental symptoms of phthisical insanity are mostly those of *suspicion*. Not unfrequently the attack begins with maniacal symptoms, which are, however, generally of short duration. These symptoms pass into melancholia, sometimes into insane suspicions, at other times into dementia, in which, indeed, most of them terminate before the fatal result.

Dr. Clouston made out the interesting fact that, although tuberculosis is not very common in general paralytic insanity, in all those cases where it did occur the patients had melancholia and general depression, instead of the happy and extravagant delusions of wealth, rank, and power, which generally characterise the general paralytic.

“Dr. Skae,” says my friend Dr. Clouston, “considers that every case of insanity comes much more under some natural group than under any of the divisions of Pinel, Esquirol, and Prichard. I have observed that there are certain cases of which, from their mental symptoms alone, I could predict they were likely to die of phthisis. They are not all cases of mania, nor of melancholia, nor of monomania, but some of them would come under one of these divisions, and some under another. There is no one symptom they have in common, and no well defined line of demarcation separating them from other cases. There is no diathetic mark, nor physical sign to distinguish them, yet they take their place in one’s mind as a natural group notwithstanding. If they have been acute at first—either acutely maniacal, or acutely melancholic—the acute stage is of very short duration, and passes neither into a chronic stage, nor into deep dementia, but into an *irritable, excitable, sullen, and suspicious* state. There is a want of fixity in their mental condition. The intellect is not at first so much obscured, as there is a great disinclination to exert it, and there are occasional unaccountable little attacks of excitement, lasting only a very short time, unprovoked attacks of irritability and passion in a subdued form. There is a disinclination to enter into any kind of amusement, or continuous work, and if this is overcome there is no interest manifested in the employment. It might be called a mixture of sub-acute mania and dementia, being sometimes like the one and sometimes like the other.

As the case advances the symptoms of dementia come to predominate; but it is seldom of that kind in which the mental faculties are entirely obscured, with no gleam of intelligence, or any tendency to excitement. If there is any tendency to periodicity in the symptoms at all, the remissions are not so regular, nor so complete nor so long, as in ordinary periodic insanity. If there is depression it is accompanied with an irritability, and the want of any fixed depressing idea or delusion. If there is any single tendency that characterises these cases, it is to be *suspicious*. I found that of the 136 men with tuberculosis, 56 manifested suspicions; and 64 of the 156 women did so. The state I have described may, I think, be called "phthysical insanity." The patients are not so apt to get stout, as in ordinary dementia, and frequently the appetite is capricious. The pulse is generally weak, and frequently more rapid than usual. There is a want of tone and energy about the system which is very noticeable. There is a want of interest in anything that goes on, and an absence of sympathy where there is not a positive suspicion of every one around. In many of the cases the suspicions are the chief symptoms. We have seen that nearly all the cases of pure monomania of suspicion are phthysical. In many of the cases the insanity commenced insidiously and showed itself by an alteration of conduct and affection, an increased irritability and waywardness, and a progressive weakening of the intellect, without any great excitement or depression. Some cases of the so-called moral insanity die of phthisis very soon. However demented these cases of phthysical mania may seem to be, there are fitful flashes of intelligence, and in them, perhaps, more frequently than in any other class of cases, there is increased intelligence, and, as it were, a slight unveiling of the mental faculties immediately before death."

Under the term "phthysical insanity," Dr. Clouston only "included those cases which died within five or six years after becoming insane, and in which the development of the two diseases was somewhat contemporaneous." Dr. Clouston excluded all the old chronic cases, and all cases where there was refusal of food, because in them we might have other causes for the development of tubercle.

I think that Dr. Clouston's description of phthysical insanity is most graphic and correct, and that no one accustomed to view insanity from this point of view would have any difficulty in diagnosing the true phthysical cases in

the wards of an asylum. For details I must refer you to the admirable paper from which I have so largely quoted.

Dr. Clouston ascribes the insanity as the impaired nutrition of the brain in phthisis, and its special action on the brain as due in an unusually large number of cases to hereditary predisposition, determining the want of nutritive activity to that organ. The tuberculosis develops the hereditary predisposition into actual disease—a disease of an eminently anæmic type affecting the brain primarily by impaired and defective nutrition.*

Dr. Blandford appears to be of opinion that Dr. Clouston has failed to establish an etiological relation between phthisis and tuberculosis. He quotes the experience of Dr. Cotton and the Hospital for Consumption as being adverse to the theory.† He further cites Dr. Clouston, from his report for 1870, as if he resiled from his former position, by stating that the cases of phthisis and of phthisical insanity had diminished in the Carlisle from, he thinks, the introduction of a better dietary. “From this,” says Dr. Blandford, “it would seem that Dr. Clouston himself suspects that the phthisis may be due to asylum influences, and not necessarily connected with the insanity.” This is the most extraordinary *non sequitur* I ever read. Dr. Clouston nowhere ascribes the insanity to asylum influences, but to phthisis, and it follows that if the cases of phthisis in an asylum are fewer, the cases of insanity accompanying this disease must be fewer too, because *they are connected with it*.

“Whatever the disease in the lungs, the circulation in the brain appears to be vigorous, as we should expect from the high rate of the pulse. And we know that phthisical, beyond any others, retain their mental faculties unimpaired to the last.”‡

Dr. Clouston had anticipated this statement as likely to be made in objection to his paper, and has admirably anticipated his defence in the following reply to it:—

* In 1854 I pointed out that the specific gravity of the gray matter of the brain was below the average in all patients who died of *phthisis*.—An. Rep. for 1854.

† When we consider that it was not so much insanity occurring in the course of consumption as the two diseases appearing simultaneously, and that very few indeed of my cases had well developed insanity on admission, we see that the cases would not be so apt to go to the Hospital for Consumption as be sent to the lunatic asylum. Even if all the cases of phthisical insanity had first been in the hospital, and supposing that it is twice as common among the phthisical as ordinary insanity among the general population, then Dr. Cotton would only have met with one insane person in 170 patients.—T. S. C.

‡ Dr. Blandford, Op. cit., p. 86.

“The greater frequency of hereditary predisposition to insanity among the tubercular than among the non-tubercular shows that tuberculosis, more than any other cause, develops such a predisposition into an actual disease. And in how many ordinary phthisical patients do we find an irritability, lassitude, fancifulness, and fickleness of purpose, that borders on an unhealthy state of mind? It has been my experience that phthisical patients can seldom apply themselves to any continuous mental exertion, but on this point I speak with diffidence. Their intellects may be clear and unclouded to a preternatural degree, but their efforts resemble more the brilliant flashings of an ill-supplied lamp, than the continuous steady light of a healthy mind. Ask anyone who has watched two or three phthisical relatives during their illness, and they will tell you of the absurd fancies, amounting almost to delusions, and of the sudden causeless changes from hope to despondency, from cheerfulness to irritability, of the whims and wanderings of mind, and transitory moments of delirium, that accompanied the disease. All these symptoms have a cause in an ill-nourished brain, and when they are more developed they become insanity.*†

The general results to which Dr. Clouston’s investigations led him are summed up in the following abstract, with which I shall conclude this subject:—

1.—Phthisis pulmonalis is much more frequent as an

* Op. cit.

† My experience since the foregoing was written, ten years ago, has led me to believe that there is a phthisical insanity that occurs in persons of this diathesis with no local symptoms of tuberculation at all, and that under proper treatment and hygienic conditions it is by no means an incurable disease. I have also observed that the coming on of phthisis in a patient, who has been for many years insane, will often affect the character of the insanity, and affect them in the direction of the special symptoms of true phthisical insanity. I also believe now that this form of insanity is not so incurable as I stated in 1863, even if there are local deposits of tubercle in the lungs.

It has also been urged that phthisis is really no more prevalent in lunatic asylums than among the population, if as much so. This is a fallacy resulting from the mode of calculating the comparative prevalence of the disease, as was well shown in the last report of the Scotch Commissioners in Lunacy. Counting the proportion of deaths from phthisis to the average population of an asylum, and comparing it with the same proportion in the case of the general population, we find it to be quite three times as much. During the last ten years ten patients to the thousand of the average population have died of consumption in the Carlisle Asylum (and in it the disease had been rare compared with many similar institutions), while in the general population above three years of age the proportion is not more than three, or at *most* four, to the thousand, as shown by the registrar’s returns.

The proportion of cases of phthisical insanity to the whole number of insane has been 5 per cent. in the Carlisle Asylum for the last ten years.—T. S. C.

assigned cause of death among the insane, than among the general population.

2.—Tubercular deposition is about twice as frequent in the bodies of those dying insane as in the sane.

3.—Phthisis pulmonalis is the “assigned cause of death” in only about one half of those in whom tubercular deposition is found after death.

4.—The brain in the cases of tuberculosis is not so frequently diseased in a marked manner as it is in those dying of other diseases among the insane. In the majority of the cases the brain is pale, anæmic, irregularly vascular, with a tendency to softening of the white substance of the fornix and its neighbourhood, and the gray matter of lower specific gravity than in any other cases of insanity.

5.—Tubercle is not more frequently found in the nervous centres among the insane than among the sane, and when found it does not, in all cases, or even in the majority of them, produce any symptoms, and is not connected with any particular form of insanity.

6.—Tuberculosis of the peritoneum is not more frequent among the tubercular insane than among the same class in the sane. In the former it is more frequently associated with melancholia and monomania of suspicion than ordinary tuberculosis of the lungs.

7.—The average age at death of the cases of tuberculosis is about three years below the average age at death among the insane generally; and the average age of those in whom much tubercular deposit is found is five years below the general average.

8.—The proportion of the tubercular who had had previous attacks of insanity is about the same as among the insane generally.

9.—There is hereditary predisposition in seven per cent. more of the cases of tuberculosis than of the insane generally.

10.—Monomania of suspicion is the “symptom” of insanity in which tuberculosis is most frequent, and general paralysis stands at the other end of the scale that marks the frequency of tuberculosis in the different forms of insanity; mania stands next to general paralysis, and melancholia to monomania of suspicion; while the tendency to dementia in all forms of insanity is greater among the tubercular than among the non-tubercular. A majority of the cases of general paralysis and mania die non-tubercular; a majority

of the cases of melancholia, monomania, and dementia exhibit proofs of tuberculosis before death.

11.—In all the cases of general paralysis who were tubercular, the disease had commenced with depression.

12.—In a certain number of cases (about one-fourth of all those in whom tubercle was found) the insanity is of such a peculiar and fixed type, that it may be called “phthisical insanity.” In all those cases the phthisis is developed so soon after the insanity, that tubercles must have already formed in the lungs, or a strong tubercular tendency been present, and about to pass into actual tuberculosis when the insanity appeared. We know that the chief characteristic of tuberculosis is an impaired energy in the nutritive processes, and as a badly nourished bone becomes carious or necrosed for slight causes, or a badly nourished skin becomes subject to parasites, so disordered action results in those imperfectly nourished brain-cells, from causes which would not be felt in a healthy brain. It is not the enfeebled nutrition directly, so much as the perverted action to which the enfeebled nutrition predisposes, that produces the insanity. The peculiar mental state, the incurability of the insanity, the appearance of the brain after death, and its lowered specific gravity, all point to such a cause for the derangement.

13.—There is a special relation between deep melancholia, with long-continued suicidal tendencies and refusal of food, and *lung disease*—either gangrene or tubercular disorganization.

14.—There are a few cases in which the insanity is only a kind of delirium occurring during previously developed chronic phthisis, and soon passing off.

15.—The prognosis is most unfavourable, if tuberculosis occurs in any case of insanity.

16.—Half the cases of tuberculosis die within three years after the commencement of the insanity.

17.—There is no proof that the “morbid influence of the pneumogastric nerve” has anything to do with the tuberculosis in cases of insanity.

18.—Long-continued insanity does not tend to the development of tuberculosis more than to the production of other diseases.

19.—Phthisis is entirely latent in between one-third and one-fourth of all the cases among the insane, and in almost all the others it is latent for a considerable time. This latency is most frequent in general paralysis, in which the majority of the cases of phthisis exhibit no symptoms whatever.

20.—There are very few cases where the commencement of

insanity benefits the phthisis, but in a few, where the phthisis is very chronic, an attack of insanity may be followed by the permanent disappearance of the phthisical symptoms, or attacks of mania may alternate with symptoms of phthisis. In by far the majority of such cases, however, the phthisical symptoms are merely masked, while the deposition of tubercle goes on.

The Morbid Psychology of Criminals. By DAVID NICOLSON, M.B., Medical Officer, Her Majesty's Convict Prison, Portsmouth.

(Continued from Page 409, Vol. XIX.)

The Special Delusions of Prisoners.

Having made ourselves acquainted, in a measure, with the more rudimentary perversions to which mental operations in prisoners are liable, we shall be the better able to enter upon a consideration of those more advanced perversions which establish themselves at the expense of the healthy exercise of a reasonable intelligence, and which induce behaviour so eccentric or obstructive as to necessitate medical interference. These latter I propose to deal with under the general term of *delusions*; not being always careful to discriminate between a "delusion proper" and a hallucination; for, after all, what is a hallucination in its outward manifestation but a delusion credited (upon grounds not always well established) with some relationship to the organs of sense.

The delusions met with among imprisoned criminals are of two kinds; the *ordinary* and the *special*. By ordinary delusions I mean those to which prisoners, in common with all human beings, are liable. In number and extent they are inconceivable, as they lie beyond the confines of reason and healthy imagination. Although I may have occasion to make remarks which are applicable to ordinary delusions, they are in themselves beyond the subject at present in hand.

The *special* delusions of prisoners to which I am desirous of drawing attention may be defined as those delusions which arise in connection with the peculiar circumstances of prison life, and which are referable, more or less, to those circumstances. They are special rather as to the frequency than as to the exclusiveness of their occurrence in prison; for it is not to be maintained that delusions of a kindred nature may not occur in the outer world.

If we were to attempt to build up a theory as to the occurrence of special forms of delusion among prisoners, we would naturally seek for a foundation in those outward conditions which characterise prison life, and we at once find ourselves face to face with the essential principles of imprisonment as a system of punishment; and we shall find that the correctness of such a theory is endorsed and supported by practical observation. Apart from the social and moral degradation implied, those principles involve physical penalties which are partly passive and partly active in their nature. The former include severance from social intercourse and comforts, and restriction of diet, as well as of personal liberty; and the latter, the active penalties, consist of the strict enforcement of discipline and the exaction of a certain amount of labour. Such penalties, the intentional and irksome counterpart of social freedom, depend for their efficacy upon their general impressiveness on individual prisoners. And as it is on this footing that they are inflicted, and their results calculated, the physical inconveniences which they involve, and which are both novel and irritating, necessarily establish themselves among the primary and prominent subjects of thought among the imprisoned. Irksome experiences of this sort are accepted by the vast majority of prisoners as the necessities of circumstance, whose effects are to be put up with since they cannot be avoided. But in some minds, and in certain frames and conditions of mind, such experiences not only effect the vivid impression intended, but they go further; they give rise to ideas so strong, and, as it were, one-sided in character, that the balance of reason (such as it is) becomes disturbed; the whole mind is swayed in one direction, and becomes unstable, as a ship whose ballast has shifted. One of the chief ways in which this mental disturbance reveals itself is in that morbid process which I have noticed under the name of simple perverted ideation. I pointed out that this process implied the existence of certain somewhat persistent misconceptions, and these misconceptions are neither more nor less than the rudimentary condition of delusions.

There are four sets of subjects to which the special delusions of prisoners are referable, and they may be thus enumerated:—

1. The unfair treatment he receives as a prisoner, by the infringement of his "rights," or by undue punishment.
2. The food he gets is tampered with; by the addition of poisonous or deleterious substances.

3. Mysterious visitations and communications (mostly associated with thoughts of home or of guilt).
4. The original injustice of his conviction and sentence to imprisonment.

We shall now proceed to consider the more important points connected with these delusions. I may first state that they are usually found in combination, two or more of the delusions occurring in the same case. The first, second, and fourth have in common the idea of injustice and ill-usage, which, as we have already seen, so readily presents itself to the prisoner's mind. In considering each form separately, we shall be able to learn something of the various phases of mind in criminals, in connection with which delusions are apt to occur.

I. *Delusions bearing upon Unfair Treatment.*

The *origin* of delusions on this subject may be *fanciful*, or it may be *circumstantial*.

The delusion, whose origin is *fanciful*, grows out of some false conception in the mind of the prisoner himself, as a starting point, there being no actual prison occurrence to which it can be referred.* In illustration of this *fanciful* starting point, we may take the case of a prisoner who entertains the idea that some particular official, of whom he knows nothing, and who has never had anything to do with him, has selected him as a special object of persecution. Under this false impression he conducts himself as if in constant dread of the influence for evil which this official exerts against him. He is ever ready to fasten upon the fancied tormentor any or all of the mischances or trivial inconveniences of his position, which are themselves often mere flights of fancy. Being unable to correct these erroneous workings of his imagination, he lapses into confirmed delusion, which, under such circumstances, is almost sure to be accompanied by other signs of mental and cerebral derangement. Delusions having this fanciful basis are happily rare, but their occurrence indicates at the outset an amount of mental disturbance which is proportionately serious, seeing that the primary annoyance and irritability have, in point of fact, no immediate external exciting cause, and that they are due merely to the *already* morbid mental processes themselves.

Delusions of *circumstantial* origin, on the other hand, are

* This will not, of course, detach it from the *special* class, for the general prison circumstances (from their irksome nature) may be shown to favour the formation of notions of this sort.

referable to some distinct event, or set of events, happening during the prison career. Such events, implying improper or hard treatment, are, in the great majority of cases, simply in accordance with the rules of discipline, which must be maintained; as when a prisoner commits himself in a misdemeanour, which he may consider of trifling importance, and for which he is punished, as he thinks, with undue severity. But, no doubt, there is now and again some unfairness connected with such occurrences, as when a prisoner, to use his own phrase, is really "put upon" by a warder, and is indiscreetly dealt with, if not wilfully wronged. In the former case, the hasty impression taken up in the face of authority indicates an impulsiveness and want of judgment; but in the latter, where the prisoner meets with vexatious interference, the original annoyance and irritation can only be looked upon as natural, and, up to a certain point, excusable. But in whatever way the early subjective feelings of irritability are set up,—whether they are natural and well-grounded, or whether they are the evidence of defective or diseased conditions of mind—the *character* of the ultimate delusions belonging to this class is the same; a false idea becomes established in the mind of the individual that he is purposely annoyed and ill-treated, either in a general way as regards the circumstances of his imprisonment, or else, more particularly, at the hands of one or more officials.

Delusions of this irritative type lead to well-marked outward manifestations in the conduct and bearing of the individual. He is apt to offer resistance to authority, and to show resentment; and out of this grow stronger feelings of hate and revenge; threats are freely made use of, and personal violence attempted. Such delusions are, I think, proportionately much more common among male than among female criminals; and this is for the most part due to the stricter discipline enforced among the former, and to the distasteful pressure of their labour upon them. Hence, many of the lazy, discontented men come to be possessed with delusions of this form—their chronic grumble having assumed the mastery.

II. *Delusions as to Poisonous or Deleterious Admixtures with Food.*

The dietary restriction entailed by imprisonment exerts its punitive influence by striking at the first instinct of our nature; and it is no wonder if this influence presses itself

closely home upon the thoughts of the prisoner, and thereafter gives birth to extravagant and morbid ideas on the subject. A compulsory dietary, framed on the physiological principle of the balance of nutrition apart from possible gastric capacity, is one which cannot fail to produce frequent and powerful yearnings, both physical and mental; and if the prisoner, from the almost constant tenor of his thoughts, may be said to have a belly-god, it is assuredly not of the Epicurean form. That their food is poisoned, is popularly accepted as *the* delusion of prisoners. Dickens, writing about the inmates of the prison at Lausanne, says,* “One delusion seems to become common to three-fourths of them after a certain time of imprisonment. Under the impression that there is something destructive put into their food, ‘pour les guérir de crime’ (says M. Verdeil, the prison doctor) they refuse to eat.” Although in the English prisons it is nothing like so rife as this, yet there is no single subject on which prison delusions of a definite character are more frequently formed than that of food. Food-delusions are sometimes the only evidence of mental disturbance presented by prisoners, and it is a matter of some difficulty to arrive at any conclusion as to how far there is a primary disturbance in the nervous tract connected with the sense of taste. My impression is, that they almost always originate in some disturbance of the ideational centres. This form of delusion is usually associated with those of the irritative type which I have just described; food-poisoning being looked upon by the deluded victim as a means adopted for his annoyance and torture. The delusion may induce him to refuse his food altogether for a day or two, but he will not persist long in so doing in the face of artificial feeding. Or he may refuse a portion only of his day’s rations; his cocoa, for instance, on the ground that “something” has been put into it. Were it not for the variety, limited as even that is, of the prisoner’s diet, I believe delusions on the subject would be much more common in English prisons than it is.

III. *Delusions as to Mysterious Visitations and Communications.*

In a great many cases the mystery in false perceptions of this sort connects itself with the friends and relatives from whom the prisoner has been separated. He will assert that his mother came to him and spoke to him in his cell last night, or that his sister is now waiting outside the prison to

* Foster’s “Life of Dickens,” vol. ii., p. 207.

take him home. In other cases some fearful image presents itself to him; he sees a "black man," the devil, or some hideous animal. It is not to be wondered at if strange fancies arise in the mind of the prisoner, shut up in the silence and darkness of his cell, with only the workings of a guilty conscience for companionship. How often may it be said that the object of hallucination in the criminal is "but a dagger of the mind." May he not say with Macbeth—

"There's no such thing;
It is the bloody business which informs
Thus to mine eyes."

Delusions of visitations, &c., are apt to reveal themselves in temporary excitement. The prisoner, in his cell, is heard talking loudly, and in an excited fashion to some object, and, when the door is opened, he continues to address himself to the phantom, or he tells the warder to "look at it." If the object presents itself in the form of the devil, or something hideous, he may attack it or barricade up his door in order to prevent it getting at him. He does not attempt violence usually on the prison officials in connection with this delusion; he may rather ask protection.

Delusions of this class have a more prominent relationship to the organs of sense than have those bearing upon the subject of food; and vision and hearing are chiefly referred to.

But where delusions—or hallucinations if you will—are evolved from ideas connected with the sensorial centres in prisoners, it may be asked, when do they warrant the use of the term *special* prison delusion? for here, as in all hallucinations, we have sensorial impressions represented, and those impressions in the present case are not necessarily consequent upon imprisonment; indeed, they seldom are. The peculiar feature of special delusions of this sort consists in the readiness with which, as a result of imprisonment and its concomitants, particular sensorial impressions are taken up and interpreted (or misinterpreted) in certain directions, false notions and convictions being finally established.

The impression which is conveyed upwards from the organs of sense comes in contact with those ideas—of home and friends on the one hand, or of horror and guilt on the other—which are naturally prominent in the prisoner's thoughts; and the morbid product of this association shows itself as a hallucination, or, more correctly, as an illusion.

But the reverse of this process, where no actual impression has fallen upon the sensorium, and where the mental strain or tension in particular directions conjures up or suggests the existence of a sensorial current, is equally frequent in its occurrence, if not more so. There is no doubt, however, that the higher mental processes connected with ideation are almost always chiefly and primarily at fault, apart from the question whether the sensorium has or has not been acted upon from without. Where it has *not* been acted upon, I take it that we have an illustration of what has been called an "idea-produced hallucination."

Visitation-delusions relating to home-friends have, at the outset, to do with emotions of a sentimental nature, and a quiet demeanour is preserved, but, as they become complicated with desires on the part of the prisoner which have to be denied to him, he is apt to get noisy and troublesome.

IV. *Delusions as to the Original Injustice of his Conviction and Sentence to Imprisonment.*

Had we been considering special delusions in chronological sequence, we would have had to begin with those in this class, for not only do they refer to the past as regards their topic, but they may be regarded also as likely to occur most frequently during the earlier portion of imprisonment; indeed, the prisoner not unlikely brings the rudimentary misconception, if not the delusion itself, to prison with him.

I pointed out, when speaking of the Accidental Criminal, how, by a gradual process of accommodation, the moral faculties adapt themselves to the commission of crimes of various shades of enormity; so that whatever keenness those faculties may have originally had, is gradually worn off as crime succeeds crime. The effect of this moral bluntness or blindness is such that the individual fails more or less to perceive or realise in the crime he has committed the extent of his delinquency, or deflection from the path of duty. He excuses himself, and finds strong extenuating circumstances, even if he feels that he has done wrong. He levels his crime down so far to his own satisfaction, that very little of it is left; and when for this slight degree of criminality he finds himself subjected to the unpleasant experiences of imprisonment, he looks upon himself as unjustly dealt with, and an injured man. Of course all this may occur without any delusion coming as a result. I wish merely to indicate how the thoughts of the criminal may work their way up towards a

delusion. He may stop short at any particular point; or, if he goes on as far as to work himself into the belief (when really guilty) that he committed no offence or crime whatever, he may nevertheless conduct himself properly and rationally while in prison.*

Convicts are very loth to mention the crime for which they have been sentenced. They tell you they were *charged* with this, that, or the other, and assertions of innocence are by no means unfrequent. "Innocent, sir, as the babe unborn," is the usual phrase.

Delusions on the subject of unjust conviction reveal themselves in two forms of outward expression.

In the first, the prisoner is depressed in spirits and appears to be overcome by the dreadful nature of his surroundings. When in this melancholy vein, the criminal is constantly harping upon his innocence as to crime; or else he is seized with a species of home sickness and longs to get back to his friends. "Why do you keep me here," he says, "when you know that I have done nothing to deserve this punishment. Do let me go to my wife and the children," and so on. He pleads very earnestly, but is not impertinent or insubordinate. Most probably it is his first imprisonment when his delusion has this character.

In the second form, which is the more common, and which sometimes appears as the advanced stage of that just described, the prisoner not only asserts his innocence, but he demands his freedom, and even uses threatening language and violence in addition. His tone is altogether different from that of the other. He is demonstrative and talks loudly. "I'm no convict," he declares; "you've no business to keep me here and treat me like this, and I won't stand it," &c., &c. Very likely he is an old hand, who has had a turn or two both of asylum and prison life; one of those dare-devil sort of characters who are a pest in either place.

Delusions of this class are purely psychical, whichever form they take.

General Remarks.—Having indicated the usual forms in which special delusions are met with among prisoners, as well as some of the leading features which characterise them,

* As we are dealing with cases of evident mental instability, we must not forget the *possibility* of crimes being committed in connection with epileptic discharges involving the cortical centres of the brain, whereby consciousness is, for a time, obliterated. The deed being lost to consciousness at the time, fails to present itself to memory afterwards. So, too, with some drunken acts.

I am in a position to make some general observations on the subject. I am fully conscious of the intricacy and speculative nature of investigations started with the view of probing the workings of a "mind diseased," and if it were necessary for me to make excuse for entering upon them, I would do so on the ground that I seek only to put a reasonable interpretation upon mental phenomena occurring in connection with certain external conditions which, as I said at the commencement of this series of papers, if they are exceptional, have the special advantage of being uniform in their application. The study of phenomena of this sort, tested at the standard of prison experience, is important as a matter of actual practice; and it may prove useful as a basis of comparison for kindred phenomena occurring in circumstances less definite and uniform.

It being shown that imprisonment, when it exerts a hurtful influence on the mind, favours the formation of delusions of a special type; and having made ourselves acquainted with the subjects with which these delusions connect themselves, we have attained a knowledge that will enable us so far to predict the nature of the prisoner's delusion. To put it otherwise; our knowledge consists in this, the delusion of a prisoner *may* be that he is a teapot, for example, or an Emperor, or that he is possessed of untold wealth, but it will much more likely be that he is harshly and unjustly treated, that "they" are trying to murder him, or that he suffers from food-poisoning. And, tracing the subject backward from the delusion stage, we can judge in a measure what prominent lines of thought in a prisoner forewarn us of the risk that delusion and insanity will be the sequel.

If this can be done in the case of prisoners, the question comes to be how far it can be done with other groups of individuals. True, with prisoners we possess accurate knowledge of their circumstances and surroundings, their goings out and comings in, as well as of the general run of their ideas; and we have the further advantage of their being brought to our notice during the earlier stages of mental disturbance. But, still, a careful study of the knowledge and information at our command in the case of groups enjoying the full run of social privileges, might surely yield some results as to the occurrence of special delusions in them. It is of the nature of a truism to say, in a general way, that the mind is liable to break down in the direction in which tension or strain is kept up; but what, under particular

circumstances, are the directions in which tension and break-down are likely to occur? and, if the mental break-down comprises a delusion, what *peculiar* forms of delusion (if any) are recognisable? Simply to mention an example, the special forms which delusions take when they occur in Revivalists and their mode of growth might be worked out. Something has yet to be done towards ascertaining the position we are to assign to delusions in the domain of mental pathology. There suggests itself a striking analogy between delusions (as mental outgrowths) and tumours of the body. The prominence of the one on the surface of mental phenomena is as readily distinguishable as that of the other on the outline of the body. As we have *innocent* tumours, whose "structure is not widely different from that of a natural tissue," and "which do not grow at the same time in many different tissues;" so have we innocent delusions which may be said to be merely an extension of normal mental processes, and which are simple, and confined to one set of ideas. Again, as there are *malignant* tumours (with structure peculiar to themselves) whose root is deeply set in more tissues than one, and whose destructiveness diffuses itself until the very vitals are reached; so are there *pernicious* delusions (apparently unconnected with normal ideation) whose tendency is hurtful and dangerous, and which are apt to increase in number or intensity until they altogether override and destroy the intellectual faculties. But, without asserting the completeness of the analogy, and without carrying it further, it may be asked, what is the use of seeking for a pathology of delusions when they are so diverse, that their name is Legion? And yet this was the very difficulty in connection with tumours before their elaboration by Virchow and Paget. The latter says,* "the diversity of character is the great difficulty with which the pathology of tumours has to contend; but the diversity is not to be called inconstancy; it is due to the fact that each tumour has, like each natural tissue, its phases of development, of degeneration, and of disease." And surely delusions have their phases too, whether we look upon them as outgrowths upon the normal intelligence on the one hand, or as indications of diseased states of mind on the other. In what I have said about special prison delusions, I have sought to present them rather in connection with the former point of view.

* "Lectures on Surgical Pathology," 1863, p. 389.

One peculiarity of such special delusions is that they all (except some of those connected with midnight visitations) deal with *possibilities*; thus, a prisoner *may* be ill-used; his food *may* be tampered with; he *may* be innocent of the crime of which he is convicted. Improbable as they may be, they are nevertheless not impossible, and they are free from that absurdity and incongruity which characterise so many ordinary delusions. And this peculiarity of special delusions is one of the best, perhaps the best, evidence of their *growth*. They start from an idea which in itself is not only conceivable and possible, but which is more or less naturally suggested by circumstances. And as the effect of imprisonment is to bend the mind inwards upon itself, the idea repeats itself and thereby gains ground until it finally establishes itself in a morbid or diseased state. Solitary confinement is especially apt to give rise to mental disturbance, and is well known to favour the occurrence of delusion; and hence it was found necessary to limit the "separate" stage of penal servitude in English prisons to nine months. But we shall have occasion to refer to this again.

Of the special delusions of prisoners, two sets are purely psychical, viz., those connected with the original injustice of their sentence, and those that have to do with unjust treatment during imprisonment. The remaining two sets, referring to food-poisoning and to visitations, may also be purely psychical; but they are distinguished from the others by involving a reference to sensorial impressions. But whether those impressions, in individual cases, had any *actual* existence, or were simply *ideal*, is a point which I believe must, in the great majority, remain a mystery; the means for helping us to arrive at a positive decision being at the very best but slender. These latter delusions, then, may be psychosensorial as well as purely psychical; but we are seldom in a position to say when they are the one or when the other.

It is of some importance for us to inquire, in connection with these special delusions, how far any violent or dangerous tendencies may be apprehended. It is clear that with delusions of an ill-natured type we can never hold ourselves as being safe and free from risk. And as with the delusions of which I have been speaking, we have for the most part evidence of a fancied grievance, giving rise to irritation and feelings of resentment, we cannot be too cautious in dealing with those so affected. We have to see that they are deprived of the means of effecting any evil purpose, and we

must be careful not to offer them, by being unguarded, suggestive opportunities of attack. And these precautions are, of course, all the more necessary on the part of anyone against whom the grudge is specially levelled. Self-injury is not on the whole very likely to be resorted to. Partial or complete abstinence from food may be tried, but it is not long persisted in. In the sentimental form of delusion, bearing on unjust conviction or severity of sentence, there may supervene such an amount of melancholy as to prompt to self-destruction, and to necessitate the institution of precautionary measures.

There is one more point upon which I must touch. Prisoners *sham* delusions, as they are found to sham almost every other morbid condition. Now, although cases of feigned insanity present themselves to us from time to time without delusion, they yet most generally have this accompaniment; for it affords a striking contrast with the normal display of reason and intelligence. Delusion is a positive evidence, and the impostor seeks to make a profitable use of it in his game of insanity. How far do prisoners affect special delusions in their imposture? It will be found that those forms (connected with food-poisoning and visitations) which I noticed as involving a reference to sensorial impressions, are generally utilised by the schemer. And for this reason; they appeal more directly to the senses of the on-lookers by affording grounds for such conduct as appears incompatible with sanity. This does not hold with regard to the other special delusions, and hence they are not favoured by the impostor.

The prisoner who is "mad but in craft" knows that if he gets up an excitement, and "sees the devil," &c., the matter comes at once distinctly within the province of the doctor, who deals with him according to the opinion he arrives at. But if, on the other hand, he were to affect a "grievance" and a feeling of indignation and resentment against an official, and to follow this up by using expressions appropriate to the occasion, he would very likely be relegated, in the first instance at least, to the punishment cells for the use of threatening language.

The impostor does not like half measures; he gets no credit for them. He takes care to present an insanity which there is no risk of confounding with a mere ebullition of temper; and which is sufficiently far removed from any line of conduct that could be called rational.

Since these remarks about special delusions were written,

a particular interest has arisen in the pathology of the subject, out of the suggestive paper of Dr. Blandford's, on "Auditory Hallucinations," and the subsequent discussion upon it at the quarterly meeting of the Medico-Psychological Association, held in December. (See "Journal of Mental Science" for January last.)

Without committing himself to a precise cerebral location of auditory hallucinations, Dr. Blandford points to the anatomical situation of the auditory centres in the medulla oblongata, and says that "there appear to be reasons why they may be referred to such a region rather than to the higher centres of the brain convolutions;" and again, further on he puts it that "the higher brain centres are not, according to my view, affected primarily by this disorder." To this Dr. Maudsley takes exception, and looks upon such a location as a mistake, and would hold the morbid seat of hallucinations to be in supreme centres of the brain.

Any attempt to reconcile such contradictory opinions on the part of two acknowledged authorities must appear a hopeless task; indeed a reconciliation is necessarily impossible if it is found that the statements of opinion are made with regard to the same class of cases, and if we are bound to accept the one to the exclusion of the other.

If we are speaking of uncorrected hallucination—hallucination as an evidence of insanity—it is impossible for us to get rid of the testimony which the supreme brain centres themselves (as the seat of the intellectual faculties) afford as to their participation at least in the morbid process going on. But it is altogether another matter when we come to consider the probable *seat of origin* of the morbid action; when we come to ask ourselves whether the hallucination arose in some deranged or diseased condition of lower centres and revealed itself through the higher (intellectual) centres, or whether any cerebral derangement, giving rise to hallucination, is confined to the higher centres.

I confess I see no sufficient reason why the location of the *origo mali* as regards the hallucination may not possibly be in either the higher or lower centres. It seems to me, that in working out his paper, Dr. Blandford's mind has been dwelling principally upon those grave, persistent hallucinations which justly call forth from him the most unfavourable prognosis. He implies as much when he remarks that, "where we notice them in the insane they are, for the most part, chronic, and the acute stage, whatever it may have

been, has passed away." At least it is chiefly to this that I would trace his rejection of derangement of the higher brain centres, as, at any rate, a primary cause of auditory hallucinations. It is not always in our power to catch a hallucination in its early or favourable stage, and we certainly would not go to an asylum to look for it. In such a position it may be advantageous for us to inquire how far an investigation into the *growth* of delusion or hallucination out of, or in connection with, natural and healthy ideas, proves itself useful. A genuine uncorrected and special prison-hallucination (possibly auditory) leading to irrational behaviour, occurs in a criminal who shows no other evidence of insanity. The treatment consists in his removal from the solitariness of his cell to a ward, where others are present, with whom he is permitted, more or less, to associate. The hallucination speedily (if not at once) ceases, under the new circumstances in which he is placed. He is *cured*, I think I may use the term, of his delusion or hallucination by the removal of certain conditions, which are found to be productive of hallucination; conditions involved in solitary confinement, of which, taken generally, the main feature is the limitation of thought, together with the concentration of ideas in particular directions. It may be taken, therefore, that the special direction and concentration of the thoughts are the conditions to be removed in order that the resulting hallucination be dispelled. And the readiness with which the hallucination is thus cured shows that it was due to some disturbance in those higher centres of the brain immediately concerned in the intellectual processes rather than to any morbid condition in the more remote centres.

Griesinger,* speaking of the effects of imprisonment on the mind, says, "Solitary confinement particularly disposes to hallucinations of hearing; this appears to result from patients soliloquizing and believing that they hear others speaking."

In such cases, possibly enough, but not of necessity, some impression is made upon the auditory centres from without, but the hallucination or illusion is developed out of the interpretation which the supreme centres put upon the recorded impression, and which very frequently is in accordance with the prevailing current of ideas; as for instance when the individual's mind is filled with thoughts connected

* Mental Diseases, "Syd. Socy. Edition," p. 148.

with home or with a guilty conscience, as we saw when speaking of visitation-delusions. Change of scene from solitary brooding into association with fellow beings, forms, together with the supply of fresh ideas from real speakers, the natural remedy. I cannot but think that in cases of this sort we are warranted in looking upon the higher centres as being primarily at fault. I do not see how any organic mischief in lower centres giving rise to hallucinations could be so easily remedied. If it is said that temporary hyperæmia or tension in those centres might account for this curability, what about such temporary and local lesions also obscuring the reasoning powers (which may not hitherto have shown signs of being disturbed)? Or I would ask how it is, as sometimes happens, that the hallucinated patient who *tastes* poison in his food and therefore refuses it when offered by certain attendants, will nevertheless accept it as untainted when given by others? Surely here it is the *idea* and not the *taste* that is morbid.

Both Dr. Blandford and Dr. Maudsley claim the hallucination of Sir H. Holland's patient as being illustrative of the particular view which each holds; and this shows how much the question is at present a mere matter of opinion. And it is unavoidable that it should be in a great measure speculative. But the point which I have been urging, as to the growth or development of hallucination out of normal currents of idea, and in connection with peculiarity of surrounding circumstances, helps us, I think, to some practical evidence, which is more of the nature of proof; especially if we bear in mind the curability of some of the cases, and the conditions attending it.

But while I think we must accept the possibility of uncorrected hallucination having its primary morbid seat in the intellectual centres of the brain, I do not see that we are in a position to deny the possibility of the sensory ganglia being the primary seat of derangement. No one will deny the liability of the ganglia of sensation, in common with every other part of the body, to become the seat of disease, structural disease; and consequently no one will deny their liability to disturbance or derangement of function. A morbid state of the sensory nervous centres being possible, what is the result? They may be the seat of morbid sensorial impressions; it matters not here whether the morbid impression is the morbid record of a *bonâ fide* impression from without, or whether it is simply the product of morbidly acting centres. This morbid

or false impression is transmitted upwards to the centres of perception and ideation; where, *if it be corrected*, the best possible proof, viz., that of the *sane* individual himself, is afforded that he is the subject of a deceptive sensation (of the nature of a hallucination) which, however, he is able to dispel by the evidence of other senses and by his reason. If the morbid impression is left *uncorrected*, and irrational behaviour comes to be indulged in in consequence, the hallucination is an evidence of insanity; but its seat of origin remains the same, *i.e.*, in the sensorium. Or, to take Dr. Maudsley's own illustration of his position, in connection with the sense of vision. He says that in his perception of a chair three parts of the perception "are really inference, and so far imply reasoning;" and they are held to substantiate the correctness of the fourth part of the perception which is supplied by the sense of sight. Exactly; but, if occasion required, could they not equally testify to its *incorrectness*? Could they not tell us that the fourth (the initiative) part of the perception (the visual impression, say), is false; and thus inform us that the corresponding sensory centres (the optic centres) are the seat of some derangement? Assuredly they could; and we have the false impression, the hallucination, corrected. But if the three reasoning parts do not so inform us, they must accept the false impression as real and normal, and the hallucination becomes established as well as the insanity of the individual.

When the man whose leg has been amputated, refers uneasy sensations to the foot which has been removed, we point to the cut extremity of the nerve as the seat of disturbance, and not to the brain centres, whose healthy and undisturbed condition enables him to correct the false impression of the presence of a foot. Again, when we find a tumour connected with the abdominal viscera of an insane patient who believed her belly to be full of living serpents, &c., we are not unwilling to see in this tumour the original cause of the particular delusion. And if ordinary sensation when disturbed or morbidly affected thus shows itself to be capable of *originating* false impressions and suggestions, which the brain may or may not be able to correct, how can we refuse to recognize the possibility of the same being done by those centres of special sense, whose functions, being more subjective from their closer relationship to the intellectual processes, are therefore less demonstrable than the illustrations I have just given.

Dr. Maudsley himself asserts for the sensory ganglia an

independent action in disease as well as in health. In connection with functional disorders of those ganglia he speaks of hallucinations of vision as by no means unfrequent amongst some children at an early age, and points to the existence of a true "sensorial insanity." "*The patient's senses,*" he says,* "*are possessed with hallucinations, their ganglionic central cells in a state of convulsive action* [the italics are ours]; before the eyes are blood-red flames of fire, amidst which, whosoever happens to present himself, appears as a devil, or otherwise horribly transformed; the ears are filled with a terrible roaring noise, or resound with a voice imperatively commanding him to save himself; the smell is, perhaps, one of sulphurous stifling; and the desperate and violent actions are, like the furious acts of the elephant, the convulsive reactions to such fearful hallucinations." We have here neither more nor less than a rich and vivid picture of pure ganglionic hallucination.

Before concluding these observations on a question full of interest, I may call attention to a point which is worthy of some direct notice, as, if it is overlooked, misconceptions may arise.

In an insane person who becomes the subject of hallucination, the pre-existence of insanity from disease of the supreme cerebral centres does not prove that those centres are likewise the primary morbid seat of the hallucination. For seeing that the disease has existed for a longer or shorter period before the advent of hallucination, it is also possible for us to conceive that the particular hallucination did not come on *until* the general disease had extended to and involved the ganglionic centre to which reference is made. In such a case the particular hallucination is to be looked upon as having had its seat of origin in the morbid state of the sensory ganglia, notwithstanding the evidence of pre-existing disease of the higher centres. In other words, the seat of origin as regards the insanity is not necessarily the seat of origin as regards the hallucination; and in this statement different and not unimportant issues are involved which may not at first suggest themselves.

Those issues I can do no more than briefly refer to as dealing with the relations which insanity and hallucination have to each other, both in point of location and in point of time, as well as with the methods in which they may be

* "Physiology and Pathology of the Mind," p. 101.

found to approach each other and become associated in particular cases.

The following propositions embrace the leading suggestions :—

1. The hallucination may have the same morbid seat as the insanity, and it may arise before, with, or after the insanity, *i.e.*, its primary and sole seat may be in the higher or intellectual centres of the brain; it may be purely ideational.

2. The hallucination may differ from the insanity (of intellectual centres) in its seat of origin; it may take its rise in the sensory ganglia—

- a. Prior to the Insanity* : Corrected hallucinations becoming persistent and leading up to insanity.
- b. Subsequently to the Insanity* : The ganglia becoming involved, secondarily, in the morbid process; thereafter giving forth morbid impressions which are left uncorrected.
- c. Simultaneously with the Insanity* : Improbable, but not impossible.

However possible any one of these relationships may be in the abstract, there can be no doubt of the difficulty of diagnosing the particular relationship in individual cases. The close alliance between the physiological and pathological action of nerve currents and the frequently insidious transition from one to the other in connection with unstable mental manifestations, make this difficulty no matter of wonder.

The utility of investigation into the primary morbid seat of hallucination bears upon the purposes and treatment; in addition to the pathological interest of the question.

I would not have held myself warranted in departing from the main subject of these papers so far as to enter into this discussion had I not thought that the exceptional forms of hallucination with which I had been occupied might be brought into some useful relation with the question raised by Dr. Blandford. In continuing the illustrations of morbid phases of mind among criminals, I shall next take up the forms of "Weak-mindedness" among them.

(*To be continued.*)

Two Cases of Insanity dependent on Syphilis. By SAMUEL WILKS, M.D., F.R.S., Physician to Guy's Hospital.

Several cases of so-called Syphilitic Insanity have now been recorded, including some good examples of the affection, in the last number of the "Journal of Mental Science," by Drs. Newington and Batty Tuke. I now add two more which have lately been under my care in Guy's Hospital. They present no peculiar features of interest, having a general resemblance to those already reported; but I publish them in furtherance of obtaining a collection of cases in order that we may gain such a correct knowledge of their nature as numbers alone can afford.

CASE 1.—Harriet M., æt. 27, under Dr. Wilks, in Guy's Hospital, December, 1873. She gave her own history as follows:—Three weeks after marriage she contracted a sore from her husband, and six weeks afterwards had an eruption, sore throat, and enlargement of the glands in the groin. She was treated in St. Bartholomew's Hospital. She had subsequently been pregnant five times, and had miscarried on every occasion. One year and a half before admission she had some dead bone removed from the upper jaw, and afterwards from the nose. A few months after this she began to experience strange sensations in the head, and one day fell down in a fit in which she lost the power in her right arm and leg. She was taken to the London Hospital, where she remained for a month. A month ago she says she had another fit, which was preceded by severe headache, localized over the right frontal and temporal region; the sight of the right eye also began to fail and the eyelid to drop. She subsequently had another fit and has been ill since.

Her husband, who was a sailor, subsequently came to the hospital and said the history the wife had given was not quite accurate in details. He said she had had seven miscarriages; had had several fits during the year, and three during the last fortnight. On admission, she was seen to have ptosis on right side and divergent strabismus, pupil dilated, nothing particular seen by ophthalmoscope, has vacant expression, headache, answers pretty readily, but hesitates occasionally for want of a word. The right arm and leg not quite so strong as the left, though she can move them well. Sensation normal. A few scars on the skin. As it was concluded that she must have been long under the use of iodide, a simple tonic was ordered. The daily report is curtailed. It describes the occurrence of a fit ten days after admission, followed on the next day by two, and on the third day by another. They lasted several minutes, and she was always unconscious. The Iodide of Potassium was ordered in 10, and after-

wards in 15 grain doses. She had only one more fit, but complained of headache, and was very low-spirited. She then appeared rather strange in her manner, began to talk incoherently, then to holloa violently, calling out loudly for a knife to cut her throat. She begged the doctor to let her go home, and she was only kept in the ward by restraint. After a sleepless night, in which she was constantly calling out, she was more composed in the morning. Two days after this she was quiet and rational, having no remembrance of her extraordinary conduct. She had had no fit. She continued apparently improving for a week when she had another fit. She recovered from this and her health being better she was able to walk about the grounds, being quite rational. Two days after this she again became a raving maniac. She jumped out of bed and endeavoured several times to get away. Constantly screaming and so noisy as to disturb all the other patients, she was removed to a private room. On the following day she had the appearance of a confirmed lunatic, she was noisy, constantly talking, and had the most extravagant ideas; she said she was a princess and an intimate friend of the Queen's. On the following day she was calm, and had almost recovered herself, but she was sent away.

CASE 2.—Francis M., æt. 31, under Dr. Wilks, Dec, 1873. He was brought in from the street in a fit; his face was livid, and there were slight convulsions of the left side. He soon became quiet; but nothing could be got out of him. He soon had another epileptic attack, and these continued on and off nearly all day, the convulsive movements being sometimes greater on one side and sometimes on the other. When these passed off he was left in quite a stupid condition. He was ordered 20 grains of the Bromide of Potassium. He was soon afterwards recognized as a patient who had only left the Venereal Ward a week before. The history was that he had contracted syphilis four years before, and had suffered severe constitutional symptoms in consequence; had enlargement of both testes, ulceration of the pharynx, and he was taking the iodide. His mother was sent for, who stated that soon after returning home from the hospital, a week before, he was somewhat queer in his head, as evidence of which, with tears in her eyes, she related that he had said to her, "Mother, I never knew how dear you were to me until now," and other failures of his mental capacities. On the morning of his admission he had the fit which brought him to the hospital again. He had had a fit three months before, which left him temporarily paralysed on the left side. He was quite healthy as a child. On following day after admission he had no more fits, but there was considerable intellectual disturbance; he talked in a strange manner to those around him, and he wished to fight the nurse. He had a node on the radius, and liver and spleen could be felt enlarged. Ordered perchloride of mercury and iodide of potassium. During the next three weeks he remained in a very stupid condition as regards his mind, and was restless at

night. He grew gradually worse as regards his complaint. Rupia breaking out all over his body. He then had erysipelas, and it was thought that he would die; he was delirious, and had contraction of the muscles, with foaming at the mouth. These symptoms passed off when, in a day or two afterwards, he was very noisy, and quite out of his mind. He then became quieter, lay in a very precarious state, covered with rupious ulcers, but with his mind clear. He is now gradually recovering.

Several cases of a similar kind to the above have already come under my notice, and the opinion which I have always expressed has coincided with that of Dr. Newington—that the mental symptoms denote no more than the presence of a local source of irritation, and do not in their character point to any new or special cause requiring another form of insanity, styled “syphilitic,” to be added to our nomenclature. I am of opinion that the well-known local morbid conditions in the brain known as gummata are efficient causes, and therefore that no new ones need be sought, and also that there are sufficient general reasons for doubting the existence of some other more diffused pathological state of the cerebrum proper, which can be attributable to syphilis. The word disease is so commonly used in two different senses, that I may be pardoned in attempting to show how important it is that we should more distinctly define its meaning. At one time a wide and theoretical signification is given to it, and at another time it bears only a precise pathological interpretation. If we take affections of the cerebro-spinal system we find they fall into two great classes, according as they are organic or dynamic, or as they show, on *post-mortem* dissection, actual structural alterations to the eye, or they do not: the word structural also being very limited in its meaning. This division is not only pathological, but clinical; and that it is true is seen in the various nomenclatures of insanity which are constantly made. Any confusion in the matter has arisen, I believe, from associating together a theoretical or imaginary morbid anatomy with what is actually discovered on *post-mortem* examination, forgetting that morbid anatomy in our present state of knowledge is almost synonymous with destructive anatomy. All, in fact, which we recognize is decay and destruction, and if these latter terms were used when we speak of pathological changes or alterations from the normal state, the discussion would be much narrowed and simplified. It is idle to say that in all cases of insanity, as in all other disturbed functions of the body, there must be some material

changes in the organs to correspond to them. Everyone admits it, because (except forced upon us as a religious dogma) the mind fails to see how the phenomena or properties of bodies can be changed without the supposition of an altered form of the substratum. We cannot but think that a wire in a state of electric tension differs from one that is inert, and when we endeavour to contemplate the change by the mind's eye, we are forced to frame some such picture as of small particles painted white on one side and black on the other, continually changing position. When we say that a diseased mind means a diseased brain, we are uttering a truism which is founded on no known fact, and lands us in none. The statement, indeed, leads to confusion, for it confounds the known with the unknown, and probably even may be tempting us to associate under the name of disease two conditions as opposite as positive and negative ; since the use of the term disease in the general sense is not an expansion of the known, for it is intended to signify a departure from health in an upward and downward direction, whereas in the precise and known sense it means only a change in the downward direction.

In the former or theoretical sense, meaning any departure from health, it might be advantageously discarded from use, since no object can be obtained by playing with a word having so wide and loose a significance ; whilst at the same time it cannot be too distinctly stated that disease of an organ, in our present state of knowledge, signifies destruction of that organ.

I use the word destruction in a large and comprehensive sense, not applying it to every tissue, but to the case generally which is under examination. For example, in a case of Bright's disease the alterations are degenerative and lead to death, although it may be true that the heart and arteries show merely increase of natural tissue ; and the same with other diseases. Morbid changes, I say, are destructive changes, and correspond with loss of function. Morbid anatomy has hitherto done little more than show us this. As regards the cerebro-spinal centres, I believe it to be almost absolutely true that when we speak of disease we mean either the evidence of destruction or of morbid changes which lead to destruction. This, of course, means loss of function, therefore whatever our eyes or microscope have hitherto discovered in the brain or spinal cord implies dementia or paralysis, or an approach to these conditions. We

should never suspect that there had existed mania, chorea, epilepsy, or tetanus, and one cannot well see how symptoms showing an exalted activity, or activity in any form, could be associated with the destruction of the organ on which the function depends. It may be true that disease in the neighbourhood of the centres exciting them to over-activity may be found, but this is not disease of the organs themselves. A tumour on the surface of the brain may be the cause of epileptic attacks, or inflammation of the pia mater, by exciting the grey substance, may induce delirium; but its integrity is soon destroyed, and torpor and coma supervene. Again, an inflammatory product, which is something visible and tangible, may be found in the substance of the brain or cord without paralysis of their functions, but this is owing to the structure having not yet been encroached upon; nevertheless, the tendency of this product is to destroy, and to produce the necessary symptoms.

This, it will be said, is returning to the old division of disease into functional and organic; it is what I wish, and is the only practical method in our present state of knowledge. The general truism, as before said, that disease signifies a departure from the natural standard of health, is of no value when uttered, since the word is only capable of bearing the limited meaning derived from observation in the post-mortem room. A watch which is running on too fast, or a steam engine acting irregularly, may in a general sense be said to have something wrong with them, as assuredly they must have; but the wrongness need not be organic as results from a broken spring or bolt, indeed, under the circumstances named, we should expect anything but these defects. A person however, ignorant of the minute mechanism of these machines, by making a general assertion that something must be wrong when the action was irregular, and yet being only able to discover the wrong when any part was broken or destroyed, would be confounding together in his own mind two different propositions. He may assert the general proposition if he likes, and endeavour to prove its truth, but let him at the same time admit that all he knows or recognises of derangement of the machine is the discovery of some breakage, and then he will have put his knowledge in a practical form, and ever afterwards associate what he calls derangement with a stoppage of the works. As regards the brain and spinal cord, I am not aware that any other changes are known but those which lead to destruction, and which are

associated with loss of function. All analogies, as well as facts, therefore, would lead us to think that nothing coming under the denomination of morbid anatomy can be looked for in cases of mania, epilepsy, chorea, and similar affections. If it were not so, and we had any inkling of the peculiar state of the cerebral substance in these diseases, we might know in what manner all our brains differed from the healthy standard one; but none of us would expect that the person who was somewhat eccentric in his habits had such a peculiar quality of brain that the eye could discover it, much less that the differences were of that kind which are recognised by the pathological anatomist. If this is so, there is no reason why in another person, whose eccentricity has reached that further stage which obliges him to be secluded in an asylum all his life, the brain should present any morbid peculiarities. How different, however, is the case of a patient who, previously in health, "goes out of his mind," gradually loses his reason, and dies demented in a year or two. Here then is simply loss of function, and it is the fault of the dissector if he does not discover the decay of the brain substance. To take, therefore, a number of cases in an asylum and arrange them on a supposed pathological basis can lead to nothing; I would submit that the nomenclature should be wholly clinical, and this being done, the pathological differences would fall into their right places.

If marked morbid changes in the brain necessitate the existence of dementia and paralysis, such changes could not be expected to be present in cases of mania, and as a matter of fact no changes have hitherto been found in those who have died of acute mania. If any morbid condition has been discovered it has been on the surface of the brain, or involving a small portion so as to excite the whole organ; but not to destroy it. Thus in epilepsy, where the nerve force, instead of being retained and under the control of the will, escapes in fits of discharge, the brain is healthy or merely excited to action by the presence of disease encroaching upon it. That a syphilitic gumma on the surface could, by causing a fit, so disturb the brain as to produce insensibility or temporary madness does not seem so remarkable, though unexplained; but that a tumour should by its presence at the base of the brain cause a continued insane condition, is not so easy to understand. Such cases, however, are not very uncommon. I have seen several where patients have died in an asylum, the cases having been thought to be those of ordinary mental derangement, and a cholesteatomous or other

tumour has been found at the base of the brain. Whether by involving the blood vessels directly, or these indirectly, through the vaso-motor nerves, is not very clear.

It being a fact that organic diseases, such as tumours or syphilitic gummata, cause epileptiform attacks and occasionally at these times temporary mental derangement, and it being also true that ordinary tumours, such as I have mentioned, as the cancers, fibromas, or myxomata, will produce insanity independent of epilepsy, there seems no reason why syphilitic gummata should not be ranked among these causes. Judging from our present knowledge, they are sufficient for the production of the phenomena, and if on the other hand, as has already been shown, maniacal attacks are incompatible with any change in the cerebral structure, which we at the present day can call pathological, it follows that the insanity associated with syphilis is caused probably by the presence of a local deposit, and is not due to any change in the brain itself. If we now refer to clinical experience and facts, the only cases of insanity connected with syphilis yet recorded, are those where epileptiform symptoms as well as temporary paralytic symptoms, proving the existence of an ordinary gummatous deposit, have at the same time been present. If this be true we are not justified in the present state of our knowledge in admitting the existence of a disease which can, in correct pathological or clinical language, be styled syphilitic insanity; that is, there are not, as the term seems to convey to many persons, any morbid changes in the cerebral hemispheres attributable to syphilis. These cases also seem to show that the mania is quite independent of the epileptic attacks, and is not merely a phenomenon or precursor of them, unless indeed the mania might replace the epilepsy.

The Madmen of the Greek Theatre. By J. R. GASQUET, M.B.

(Continued from page 540, Vol. xix.)

VII. ARISTOPHANES.—CONCLUSION.

In striking contrast to the frequent introduction of madness into their plays by the tragedians, is the rarity of any allusion to it by the great comic writer of Athens. This is not due, as might be supposed, to any feeling that good taste would be violated by putting so terrible an affliction as insanity on the stage in a ludicrous light. The marvellous genius of Aristophanes was bound by none of our modern

canons of delicacy ; while no flight of fancy was too high for him, no depth of coarseness was too base ; and he, who in his satire was no respecter of gods or men, was not likely to refrain from putting the antics of a madman before his audience, if he thought it would serve his purpose.

It is probable that the chief object of Aristophanes—political satire—did not lead him to represent insanity in his plays ; but, whatever may be the reason, it is the more to be regretted, because the every-day life of the comedies would have given us a much more accurate idea of the condition of madmen in Athens than can be expected from the idealized representations of a distant heroic age, such as the subjects of the tragedies. The only play into which Aristophanes has introduced a lunatic—"The Wasps"—is an evidence of how much we might have gained in this way. Schlegel is, no doubt, correct in saying that it is the feeblest of all the great master's comedies, and the madness a disease of too singular a description ; yet the few lines I can quote for my purpose throw considerable light upon the management of the insane in ancient Greece.

The object of the play was to ridicule the love for sitting as jurors in the law courts, which seems to have risen to a passion with many of the gossiping old Athenians, one of whom is represented as madly devoted to it, and as being at last confined to his house by his son, who has placed servants to watch him. One of these describes the state of things in some lines which may be roughly translated thus—

My master's madness I can tell ye now, if ye be silent ;
He loves the law courts more than ever any man before did,
And grieves if he can't get a place on the first bench of judges.
At night he gets no wink of sleep, and even if he does doze,
His mind is always on the strain to watch for the clepsydra.
So used is he to hold the ballot-ball, that when he rises
'Tis with three fingers joined, as though about to offer incense.
And if he sees on any door chalked, " Handsome is young Demos,"
He'll go and scribble by the side, " How handsome is the Κηρός."*

That cock that crowed at even-tide, he said, had been corrupted,
By bribes from some then being tried, and so too late had called him.

* * * * *

This is his madness, which in spite of warnings, e'er increases,
We therefore keep him bolted in here, lest he should escape us.
His son has taken much to heart his father's strange disorder ;
He sought to talk him into staying quietly within doors,
And failed ; then had him bathed and purged, but all was unavailing ;
Next tried to get his sire to join the Corybantian dancers,
But from the troop he broke away and rushed into the Forum,
And there was found, with drum in hand, among the judges seated.

* Ballot-box

The sacred rites of Cybele thus failed to change his humour,
 So to Ægina next we sailed, and bore him to the temple,
 To pass the night before the shrine of mighty Æsculapius;
 He rested not, but, ere the dawn, was peering through the lattice.
 We brought him home, and ever since in strict confinement keep him.
 He has escaped by every hole, e'en by the drains and conduits,
 Until each aperture we plugged, or closely stopped with wedges;
 Jackdaw like, he drove nails into the wall, and so escaped us,
 Until we closed the court-yard in with nets and thus we guard him.*

The next scenes are conceived in a spirit of the broadest farce; the unfortunate madman has recourse to the most ridiculous contrivances to escape from the hands of his keepers, but he is at last brought to a parley, and induced to stay at home by the promise that his favourite amusement shall there be provided for him. A dog is tried, in due form, for stealing a cheese from the kitchen, which is amusing, but not nearly so witty as the well-known imitation in Racine's "Plaideurs;" and the old man is cured of his folly, turning out such a disreputable law-breaker that his son has more trouble with him than in his former state. This is a sketch of the play, which is, of course, valueless as a serious description of insanity; but there are several points in the lines I have quoted which seem to me interesting.

The son, we are told, tried, as everyone does, to meet unreason with reasoning, and failed; then, no doubt, had recourse to some orthodox practitioner who ordered baths, and administered the violent purgatives employed by the early Greek physicians.† We may readily believe that such a patient would prove "tribus Anticyris caput insanabile," and would gain nothing from the rashest use of hellebore.

The next step taken was a bolder one, and though probably condemned by the physician in attendance who had failed, was much more likely to succeed. I have already spoken of the epidemic madness of the Bacchæ, but they were not then the most conspicuous examples of religious frenzy. The devotees of Cybele, a worship which had been imported from the East more recently than that of Bacchus, had already become notorious for their madness.‡ To lead a madman into such a scene of frantic excitement as a procession of the Corybantes, looks, at first sight, very like a

* "Vespæ," vv. 86-132.

† Ctesias, speaking of this very time, says, that when hellebore was given in the days of his father and grandfather, patients were prepared for it as for some great danger, and of those who took it, many died, and few recovered. (Ap. Oribas., viii. 8) See too Hippocrates, *Coacæ*, 568-570.

‡ Κορυβαντιῶν was one of the words used for furious madness, as *bacchari* was in Latin afterwards. See Plato, *Ion*, p. 533 e.; and a very curious parallel (in *Lages* vii., p. 790 d.) between the treatment of the Corybantes, and the rocking and singing a child to sleep.

homœopathic remedy for any form of insanity, yet it would undoubtedly have a very powerful effect upon a lunatic suffering with fixed or systematic delusions; and, although of course highly dangerous, would not be so bad as the turntables, surprise baths, and other means of "moral treatment" used in more recent times.

I suppose, from this passage, that it was a common thing to subject madmen, with whom medicine had failed, to this singular treatment, though I have not met with any other mention of its employment.*

More is known as to the next step taken by the unfortunate son. It was a common practice to cause the sick who visited the shrines of Æsculapius to pass one or more nights in the temple, during which time they observed certain rules prescribed by the priests; the god then was supposed to reveal to the patient in dream the remedies that should be employed.† In another of his plays, Aristophanes has left us an interesting account of this custom; but I do not know how frequently it was employed in the case of the insane, and there certainly does not appear to be sufficient foundation for the glowing description given by Morel‡ of the treatment pursued by the priests in these sanctuaries.

I need not dwell on any other point in connection with this play, and may leave Aristophanes with this only further remark—that the accusations of madness, craziness, folly, and the like, which are bandied about (sometimes in jest, sometimes in earnest) between the actors in his comedies, show that the ancient Greeks were nothing behind the English in the number and variety of terms for expressing madness.§

I have now concluded my survey of the mad folk of the Greek stage, and can only trust that the materials which I have brought together, with much pleasure to myself, may have been of some interest to my readers.

I will only make this one further reflection; whatever may be thought of the want of variety in the representation of insanity on the Greek stage, there can be no doubt that madness was a common phenomenon in the every day life of the great dramatists, which (like Shakespeare) they must have had ample opportunities for studying. But when we go back to

* Richter, one of the recent editors of this play, has quite missed the point. He says, "Fallitur, opinor, scholiasta, de expiandis sacris quibusdam insania cogitans. . . . De sacris Corybantum noster non cogitat, ubi horum meminit, sed de temulentia atque ebrietate, quæ cum Liberi sacris communicant."

† Smith's Dicty., art., Æsculapius and the authorities there quoted.

‡ Études Cliniques, i, p. 515; Mal Mentales, p. 23.

§ Ex. gr., *ὄυχ ὀγιάειν* (perhaps the commonest) *κακοδαίμονᾶν, διαφοιβῶν, μελαγχολᾶν, κορυβαντιᾶν, τὸν ἐγκέφαλον σιτίσθαι, &c.*

the early Greek poets the case is quite different; the absence of any mention of insanity is remarkable. The two lines of the *Iliad*, in which the legend of Bellerophon's melancholy is hinted at, have been already quoted, and I do not remember any other reference to the subject in the marvellous panorama of the "youth of the world," which is displayed in the Homeric poems. In like manner I do not remember any but the most casual mention of it in Hesiod or Pindar. It may be said that the scope of epic poetry would not lead to any detailed description of insanity; but the real explanation of the marked difference between the writers of these two periods seems to me to lie deeper, and to be due to the presence of the known causes of insanity in the later case, and their absence in the earlier.

In many important respects the Greeks of the heroic age closely resembled the nations of Western Europe during the early middle ages, from the tenth to the thirteenth century; the great epic of which period, the *Divina Commedia*, though abounding in episodes of passion and violence, is as free from any description of insanity as is the *Iliad* itself. In both cases the conditions of life were more simple, the struggle for existence was less terrible, there was generally abundance of food, and there were few or none of the cares which a highly developed social state involves. Religion had a firmer hold on men's minds, it was accepted more unquestioningly and more implicitly, giving a natural satisfaction to the imagination without arousing the passions. The violent storms of anger, which were as terrible in the Norman princes and barons as in Achilles himself, seem to have had a beneficial effect, in preventing feelings of hatred and envy, which are more injurious because more concealed and more enduring. Finally (and perhaps most important of all), an insane or sickly person would be less likely to survive, and have offspring cursed with such a terrible inheritance.* As civilization advanced all these conditions were changed, so that the poets of the highly refined and cultivated people of Athens were able to fill in the outlines of legends of an earlier time with the characters of their own day. The same was the case in modern Europe, where the magnificent epic of Dante is succeeded by the wondrous descriptions of the madness of a Hamlet or a Lear, and by the portrait of that most loveable of all madmen, the immortal Knight of La Mancha

* It is singular that, besides Cambyzes (who was not a Greek), the only lunatic mentioned by Herodotus was Cleomenes, one of the Kings of Sparta, and who came, therefore, of a race which had been most carefully perpetuated.

Pathological Appearances observed in the Brains of the Insane.

By W. G. BALFOUR, L.R.C.S.E., &c., Medical Superintendent, Hampstead Asylum.

(Read at the Quarterly Meeting of the Medico-Psychological Association, held in London, December 3rd, 1873.)

In the "Journal of Mental Science" for October, 1870, Dr. Howden, the Superintendent of the Montrose Asylum, published an analysis of the lesions observed by him in the brains of 235 persons who died insane, and expressed a hope that some uniform method of arranging the morbid appearances found in the insane after death would be adopted by Psychologists, so as to render of scientific value the *post-mortem* records of the different asylums, and be a ready means of reference to any one working at special lesions. Dr. Tuke, in an appendix to the annual report of the Fife and Kinross Asylum for 1871, followed the plan proposed by Dr. Howden, and arranged in a tabular form the lesions found by him in the brains of 75 insane persons. With the sanction of Dr. Marshall, I collected and arranged, in a similar way, the lesions observed in the brains of 390 women who died in Colney Hatch. From these sources Table I. has been formed. It shows the lesions and their frequency in the brains of 700 people who died insane, and although its value is greatly lessened by the absence of the history, symptoms, and form of insanity under which the patients laboured, still it gives the changes from health to disease, which are, to a certain extent, peculiar to insanity.

Table I.—Showing the lesions and their frequency in the brains of 700 persons who have died insane:—

			Montrose.	Fife and	Colney	Total.
			M.	F.	Kinross.	Hatch.
Number of Cases	...	...	108	127	75	290
CALVARIUM.—Abnormally thickened	...	...	11	6	27	63
" thin	...	...	1	2	13	43
" dense	...	...	...	...	9	3
" loose in texture	...	...	...	...	3	6
Caries and perforation of	...	...	...	1	...	...
	...	...	...	...	...	83
MEMBRANES, DURA MATER.—Adherent to	to		...	...	...	83
Calvarium	...	...	15	5	22	32
2.—Abnormally thickened	...	...	3	1	8	64
4.—Calcareous deposit in	...	...	...	...	1	...
3.—Abnormally thin	...	...	...	...	...	1
5.—Ossification of	...	...	...	...	...	7
6.—Tumours attached to	...	...	2	2	...	6

	Montrose. M.	Fife and Kinross. F.	Colney Hatch.	Total.
Number of Cases	108	127	75	390
ARACHNOID—effusion of blood into sac of ...	2	5	1	19
“ “ serum „ ...	27	35	18	45
“ “ pus „ ...	...	...	...	2
False membrane in sac of ...	4	8	2	24
Sanguineous Cysts ...	2	...	...	1
Crystalline Granulations on ...	12	5	1	19
Opacity of ...	35	17	39	202
Adhesion of surfaces of ...	1	...	5	...
PIA MATER—marked injection of vessels of ...	17	16	...	20
Local bullae of fluid in meshes of ..	3	1	...	57
Sanguineous effusion into meshes of	3	8	...	30
Tumours attached to ...	...	1	...	2
Brown gelatinous deposit in ...	5	4	...	15
Adhesion of to surfaces of grey } matter ... }	23	8	...	32
BLOOD VESSELS OF BRAIN.—Atheroma of				
Arteries	19	20	16	53
Aneurismal dilatation ...	1	...	...	2
Injection of Marked ...	5	5	...	49
GREY SUBSTANCE.—Flattening of Convolutions of				
Abnormalities in thickness of ...	...	...	1	34
“ “ colour ...	...	...	16	63
Gelatinous softening of ...	5	4	...	1
Effusion of blood into ...	...	1	1	4
Granulations on surface of				
Convolutions ...	...	...	3	...
{ Inflammation, acute, of }				
{ local atrophies of }	...	...	...	...
WHITE MATTER.—Induration of ...	4	2	...	33
Edema of ...	25	19	5	26
Softening of ...	4	2	1	24
Effusion of blood into ...	...	3	3	9
Excessive shrinking of ...	3	6	15	6
Marked infection of ...	2	2	7	53
Cysts in ...	1	...	1	4
OPTIC THALAMUS & CORP. STRIAT.—Sanguineous				
effusion into ...	4	4	4	7
Softening of ...	7	2	1	15
Tumours in ...	...	1	...	2
Cysts in ...	1	...	...	6
Cicatrices in ...	...	1	...	5
CEREBELLUM.—Adhesion of Membranes to				
surface of ...	2	...	...	1
Effusion of blood into Pia Mater of	...	4	...	1
“ “ serum „ ...	...	...	...	1
Blood into substance of „ ...	1	...	1	...
Softening of ...	...	...	...	1
Cysts in ...	...	...	...	1
VENTRICLES.—Excessive serous fluid in ...	47	46	28	232
Sanguineous effusion into ...	2	6	...	13
Granulations on lining membrane of				
Opacity of ...	...	...	...	68
Softening of floor of ...	...	...	2	2
CHOROID PLEXUS.—Cysts in ...	...	...	12	58
Tumours in ...	...	...	...	2
Earthy deposit in ...	1	...	...	12
PONS VAROLII.—Granulations on free surface of	...	...	...	1
CORPORA QUADRIGEMINA.—Softening of				
fissure of Rolando of left ...	...	...	...	1
Marked difference in size of the two hemispheres	4	2	1	1
Apparently Normal Brains ...	17	29	...	14

What the position which these changes in the brain and its membranes hold to the disease insanity is, can only be determined when a sufficient series of cases have been examined, and exact records kept both of the condition of the patients during life and the *post-mortem* appearances after death. Changes such as cancer, tumours, or softening of the brain, found in persons who have died insane, if known to have existed prior to the development of the mental symptoms, are more likely to be causes; whilst alterations such as opacity of the arachnoid, fluid in the ventricles, and adhesions of the membranes to the surface of the grey matter, will probably rank as effects of the insanity.

Three individuals have lately died in the Hampstead Asylum—two women and one man—in whom after death the lesions found were considered as a probable cause of the mental condition.

The first case was that of a woman, æt. 71, who suffered from a severe pain in the face for ten years previous to her admission, the pain being constant but irregular in severity, followed by a complete change in her habits and disposition from virtue to vice, with delusions, aphasia, paralysis, and apoplectiform seizures. The autopsy showed the brain structure to have been pressed on by tumours, some of which were osseous and others fibrous, varying in size from a pea to a walnut.

The second case is that of a woman, æt. 55, who had been twice married, suffered from syphilis previous to the second marriage (twenty-nine years before her death), in whom also there was pain in the frontal region, intense but irregular in severity, followed by a complete change in her ways of life; from being a good wife, steady, and industrious, she became drunken and dissipated, had many delusions—thinking that people were tracking her for having stolen money—suffered from loss of memory both for time and place, followed by paralysis, loss of sight and hearing, with epileptiform seizures. At the *post-mortem* examination a gummatous tumour was found arising from the dura mater, pressing on and destroying the brain substance in the neighbourhood of the left angular gyrus, &c.

The third case is that of a man, æt. 45, who up to three years before his admission had been steady and industrious, kind and affectionate to his wife, and free from disease of any kind. Was knocked down one night and kicked on the head by some men, who tried to rob him. Shortly afterwards he

began to complain of excruciating pain in his head, and he had a fit of an epileptic character. Then his whole life changed; he became a thief, tried to kill his wife, to set his house on fire, laboured under many delusions, with irregular epileptic seizures. The *post-mortem* examination showed tubercle arising from the dura mater, pressing on and destroying the grey matter in the neighbourhood of the inferior, middle, and superior frontal gyri.

In the foregoing cases actual organic disease seems to have commenced before any change in the mental condition of the patients was observed. This being the case, it seems a fair conclusion that the disease produced the mental symptoms.

Changes from virtue to vice in individuals at an age when it is expected that character is formed are not uncommon.

These changes are marked by a total alteration in the habits and conduct of the individuals, and generally end in confinement in asylums, paralysis, and a merely vegetable life. *Too often* the vagaries of people of this description are looked upon as faults, and their miserable end is attributed to their own misconduct. Alcohol plays with some men an important part in the production of organic dementia; that it produces a specific form of insanity, viz., delirium tremens, just as the puerperal state tends to puerperal insanity, is well known; but it has still to be proven that it will of itself lead to organic disease to such an extent as found in the persons a short outline of whose cases are given, and who are merely types of the general class that go to swell the number of paralytics in asylums. There can be but little doubt that what were considered their faults were in reality their failings, and from which escape was to them impossible.

An examination of Table I. shows that 13 times in 700 *post-mortems*, deviation from the normal condition was observed in the cerebellum, and that four only of the lesions were of any consequence, viz., effusion of blood into its substance twice, softening of once, and cysts in once. In one of the cases, of the effusion of blood into the cerebellum, a male patient in the Montrose Asylum suddenly fell down comatose, and convulsed; he was put to bed, and for 12 hours there was alternate contraction and relaxation of every muscle in his body—the contractions being stronger on the right than on the left side. At the autopsy the whole of the substance of the left lobe of the cerebellum was found disintegrated and broken up by semi-clotted blood. The almost total absence

of change in the cerebellum amongst the insane becomes the more remarkable when taken in conjunction with the fact that there is no alteration in its weight when contrasted with the sane, although the weight of the encephalon as a whole is lighter amongst the insane.*

The relation which this apparently normal condition of the cerebellum bears to its function is interesting. In establishing the function of any organ, experiment must be supported by pathology to arrive at correct conclusions, and if they do not go hand in hand, it is very likely that experiment is at fault. It has been asserted, as a possible function of the cerebellum, that it watches over and regulates the reflex actions which constitute life, and generally takes the place of the cerebrum during sleep. How far the pathology of insanity supports such a conclusion is at present uncertain; still, the apparent total absence of alteration in the organ in diseased mental condition does not negative such an idea; on the contrary, it rather favours it, for the insane during sleep are not known to present any marked difference from the sane in the same condition.

A second point of interest in Table I. is the fact that a certain number of persons die insane, in whom, after death, the brain presents no apparent deviation from the normal standard. In 60 of the 700 cases, or in about $8\frac{1}{2}$ per cent., no lesions could be found. The failure to detect alterations must be regarded as due entirely to the absence of sufficient power on the part of observers to discover them. Other diseases besides insanity kill people, in whom, after death, no trace of disease can be found in the body to account for the cessation of life, and in such instances the symptoms manifested during the illness, and known to be those of a specific disease, are taken, and from them the cause of death is inferred. It would be unfair to refuse the same licence to cases of insanity presenting no lesions after death, and they must be placed in the same category.

* In text books the weight of the entire brain is stated to be greater amongst the insane than in the sane, the assertion being founded on the authority of the late Dr. Skae, who published a series of tables, showing the weight of the insane brain when contrasted with the sane. An examination of the statistics furnished by Dr. Skae shows that, in calculating the average weight for the total number of brains weighed, he did not add all the weighings together, and then strike the average, but only the average weights in the decennial periods. Happening to have a very large brain weight in one of those periods, and only one in that period, he took *it* for an average, and so raised the whole much above what they would have been had he calculated from all the weighings.

TABLE II.—Showing the lesions and their frequency in the brains of 333 persons who died insane, arranged under the different forms of insanity.

	Number of Cases	Mania.	Melan- cholia.	Epilepsy.	Dementia.	General Paralysis.	Total.
	...	100	26	68	82	57	333
CALVARIUM—							
Abnormally thick	17	3	16	13	8	57
Thin	8	2	9	11	9	39
Injection of Diploe of	15	10	21	11	19	76
Softened	1	...	1
Hard and dense	3	...	...	...	...	3
MEMBRANES—							
<i>Dura Mater</i> very firmly ad- herent to Calvarium ... }	...	9	...	4	7	6	26
Thickened	14	4	9	6	15	48
Ossification of	1	1	2	2	1	7
Tumours attached to	2	1	2	2	1	7
ARACHNOID—							
Effusion into Sac of Sanguine	4	1	2	4	1	12
„ „ serous... 10	...	10	...	4	9	5	28
False membrane in sac of	6	...	4	4	8	22
Injection of	1	...	...	...	...	1
Sanguineous cysts in	1	1
Granulations on	1	1	2
Opacity of	53	11	33	51	41	189
PIA MATER—							
Marked injection of vessels of	37	10	34	30	27	138
Edema of	1	...	1	4	4	10
Local bulla of fluid in meshes of ... }	...	16	3	4	18	11	52
Sanguineous effusion „	8	1	7	7	5	28
Tumours attached to	1	1	...	...	2
Deposits in	3	...	2	2	1	8
Adhesions of to surface of grey matter ... }	...	6	2	5	4	9	26
BLOOD VESSELS—							
Injection of in brain	14	7	11	7	9	48
Atheroma of	9	5	4	16	6	40
GREY SUBSTANCE—							
Abnormalities in thickness of	12	2	6	6	8	34
In colour of	14	6	17	15	8	...
Flattening of convolutions	4	...	9	3	6	...
Effusion of blood into	1	...	...	...	2	...
WHITE SUBSTANCE—							
Induration of...	7	...	7	9	6	...
Edema of	3	...	1	...	1	...
White softening of	3	1	3	2	2	...
Effusion of blood into	2	1	5	...
Excessive shrinking of	1	...	2	...	1	...
Marked injection of vessels of ... }	...	14	7	10	6	6	...
Cysts in	1	...	1	1	...	...
OPTIC Thal. and Corp. Striat.—							
Effusion of blood into	2	1	...	...	2	...
Pink gelatinous softening of	2	...	...	4	4	...
Tumours in	1	1	...
Cysts in	2	...	...	1	3	...
Cicatrix in	1	...	...	1	1	...
CEREBELLUM—							
Softening of	2	...	...
Cysts in	1	...	...	...
Cicatrix in	1	...	...	...	...	...

Number of Cases	Mania.	Melan- cholia.	Epilepsy.	Dementia.	General Paralysis.	Total.
...	100	26	68	82	57	333
VENTRICLES—						
1. Excessive serous fluid in	50	11	38	49	45	...
Sanguineous	2	2	...	3	3	...
Opacity of lining membrane } of } Crystalline granulations on } lining membrane of ... }	9	1	6	7	8	...
Adhesions of lining membrane	18	1	11	9	19	...
Cicatrix in septum lucidum...	22	5	14	14	11	...
Choroid plexus cysts in	1	...	1	...	...	...
Tumours in	17	6	2	18	4	...
Earthy deposit in	...	...	1	...	1	...
Apparently normal Brains...	3	1	3	3	2	...
	6	3	1	4	...	...

Table III.—Showing the percentage of the lesions found in the different forms of insanity.

Number of Cases	Mania.	Melan- cholia.	Epilepsy.	Dementia.	General Paralysis.
...	100	26	68	82	57
CALVARIUM—					
Abnormally thick	...	17	11.45	23.5	15.8
" thin	...	8	7.6	13.2	15.7
Diploe, injection of	...	15	38.4	30.8	33.3
Softened	1.2	...
Hard and dense...	...	3	...	...	...
DURA MATER—					
Very firmly adherent to Cal.	...	9	...	5.8	10.5
Abnormally thick	...	14	15.3	13.2	7.3
" thin
Ossification of	1	3.8	2.9	2.4
Tumours attached to	...	2	3.8	2.9	2.4
ARACHNOID—					
Effusion sanguineous into Sac	...	4	3.8	2.9	4.8
" serous	...	10	...	5.8	10.9
False membrane in Sac of	...	6	...	5.8	1.2
Ossification of	4.8	14.0
Injection of	1	...	...	...
Sanguineous cysts in	1.7
Granulations on	1.2	1.7
Opacity of	...	5.3	42.3	48.5	62.1
PIA MATER—					
Marked injection of vessels of	...	37	38.4	50	36.7
Edema of	...	1	...	1.4	4.8
Local bulla of fluid in	...	16	11.5	5.8	21.9
Sanguineous effusion in	...	8	3.8	1.4	...
Tumours attached to	3.8	1.4	...
Brown gelatinous deposit in	...	3	...	2.7	2.4
Adhesion of to surface of grey } matter ... }	...	6	7.6	7	4.8
BLOOD VESSELS—					
Aneurismal dilatation of	1.4	...
Injection of in brain	...	14	26.9	16.1	8.5
Atheroma of	...	9	19	5.8	19.5
GREY SUBSTANCE—					
Abnormal in thickness	...	12	7.6	8.8	7.3
" colour	...	14	23	25	18.2
Flattening of convolutions of	...	4	...	13.2	3.6
Effusion of blood into, old	...	1	...	...	...

It shows the frequency, per cent., in which the lesions were found in the different forms of insanity, and affords a ready means of contrasting the frequency of the alterations. The calvarium was found to differ from the normal condition oftenest in general paralysis and paralytic dementia; next in order comes epilepsy, then dementia, then melancholia, and lastly mania. The most frequent change observed was injection of the *diplœe*.

The constant determination of blood to the head, and the congestion of all the blood vessels of the brain, during an epileptiform seizure in general paralysis or paralytic dementia, and during the fits in epilepsy, may, to a certain extent, account for this. The *dura mater* is seen to be most frequently altered in general paralysis and paralytic dementia, and to be about in the same proportion in the other forms of insanity, each to each, the change most frequently met with having been thickening. The *arachnoid* presented alterations most frequently in paralytic dementia and general paralysis, next in dementia, then in mania, then in epilepsy, and last in melancholia, the change most frequently observed being opacity. This opacity of the *arachnoid*, so commonly observed, is apparently the consequence of inflammatory action. It varies in its intensity from being merely a slight milky white deposit along the course of the vessels to a complete dusky grey appearance of the whole membrane, entirely concealing the outline of the convolutions. Opacity of a kind closely resembling that met with in the *arachnoid* is not unfrequently found in other membranous structures, as on the *pericardium*, and the capsule of the spleen. Effusions of blood into the *arachnoid sac* are not uncommon. The effusion varies in degree in different cases, being met with in all forms, from a delicate coating along the surface of the membrane, to the amount of many ounces. When the effusion takes place gradually and irregularly, it begins in the form of a delicate layer in the interior of the sac, the blood becomes organised, and a delicate false membrane is formed; another effusion takes place, which, becoming organised, leads to the thickening of the original membrane, and so the process goes on, till, in the course of time, a cyst is formed, into which some day a large quantity of blood is poured, and death follows.*

* Dr. Howden, of the Montrose Asylum, was the first to point out the origin of false membranes in the *arachnoid sac*, and I have frequently verified the correctness of his statements.

These successive effusions furnish a probable explanation of the repeated apoplectiform seizures so commonly met with in certain forms of insanity where hæmatoma are found after death. The pia mater is found altered most frequently in paralytic dementia and general paralysis. Adhesions of the pia mater to the grey substance are found in 15 per cent. of the cases in general paralysis. The adhesions were most commonly met with in the neighbourhood of the superior convolutions, in the middle and posterior parts of the brain. They are found in all forms of insanity, and are apparently a consequence of hyperæmia, leading to an increased development of connective tissue.

Local bullæ of fluid, sometimes clear, sometimes having a dirty yellow gelatinous appearance, are not uncommon in the meshes of the pia mater, and seem to be due to transudations of serum through the walls of the vessels, prevented from becoming general by the dipping down of the membrane between the convolutions. The most common alterations observed in the blood vessels of the brain are marked injection and atheroma. The injection of the blood vessels of the brain is found most frequently in melancholia, being in the proportion of 26 per cent. of the cases examined. It is least frequent in dementia, whilst epilepsy held an intermediate place. Atheroma of the blood vessels of the brain was most common in dementia, the deposit frequently converting the arteries into solid tubes, having an appearance closely resembling coral, and branching out in a similar way. In the cases in which atheroma was found in the blood vessels of the brain it was generally found in the aorta at its commencement, and at the base of the mitral valve. Alterations in the colour and thickness of the grey substance were frequently met with. But little dependence can be placed upon the records regarding this, seeing that what may be to one observer a deviation from the normal standard, will to another be perfectly healthy, and that the colour will be altered by the decomposition which sets in after death.

Flattening of the convolutions was found most frequently in epilepsy, and may depend partly upon the quantity of fluid in the ventricles as well as the frequent congestion of the blood vessels, causing the nerve substance to be pressed against the calvarium, there being at the same time no diminution in the quantity of the grey matter. Changes in the white substance bear only a small proportion to the changes observed in the other parts of the brain; they consist princi-

pally of softening, œdema, induration, shrinking, and injection of the vessels.

Changes in the optic thalamus and corpus striatum are most frequently found in general paralysis and paralytic dementia. Taking into consideration the function of these ganglia, this is what might be expected. The changes consist in softening, effusion of blood into, cysts in, and cicatrices, the remains of old disease. The ventricles, in all forms of insanity, appear peculiarly the seat of alterations from the normal condition. These alterations take the form of excessive fluid, in the so-called granular deposits on the lining membrane, cysts in the choroid plexus, &c., &c. The large quantity of fluid found in the ventricles in dementia is apparently the result of atrophy of the brain substance. The granular-looking deposit on the lining membrane of the ventricles appears most commonly to be due to small collections of fluid below the membrane, and not as a rule to an organic deposit, for in stripping off the membrane no traces of the granulations remain when it is examined under the microscope.

In all probability alterations, such as those enumerated, are the products of the diseased mental condition, or, to speak more correctly, of disease existing in the intimate structure of the brain, the position and nature of which is still undetermined. They in no way favour the opinions of those who refuse to recognize actual disease as being necessary for the production of insanity, and who deny a place to it amongst the other physical diseases. These lesions are to be considered as holding the same place as the ulceration of the bowels in typhoid fever, or the effusion of lymph on the pleura in pleurisy. It is known that to produce a case of typhoid fever a constitution capable of receiving a specific poison is required, before the poison will develop itself, and the same holds good as regards insanity. Before a man or woman can be insane, a brain capable of being diseased must exist, and upon its constitution, combined with the influences which directly lead to the manifestation of the diseased mental condition, the form which the insanity takes will depend. Exposure to cold will in one man produce coryza, in a second rheumatism, and in a third pneumonia; so, poverty and want will in one man lead to mania, and in a second to melancholia, the form of the insanity being due, in a great measure, to the condition of the nerve cells of the brain. An unhealthy idea, however generated, will surely produce in the nerve cells through which

it passes an unhealthy condition, which, if not remedied, will sooner or later lead to a permanent change in these cells, and they in turn will corrupt the others. The manifestations of abnormal intellectuation resulting from the morbid alterations in the nerve cells will, in one individual, lead to acts which society will pronounce vicious, and against which it will protect itself by sending the offender to gaol, whilst another man insisting that he is the Almighty, and that he can travel between heaven and earth at will, is judged by the same tribunal to be mad, and sent for safe keeping into an asylum. In both, disease is the original cause of the abnormal state.

The following conclusions appear to receive support from the preceding remarks—1st, that insanity is a disease requiring for its production a condition of nerve-structure capable of being acted upon by malign influences. 2nd, that in some forms of insanity, actual changes in the brain substance, which in all probability were the cause of the mental symptoms, exist, whilst in others the lesions observed must be regarded as secondary products. 3rd, that a certain number of persons die insane in whose brains neither original cause nor secondary effects can be detected. 4th, that the cerebellum is but little, if at all, affected by insanity.

*Jean Jacques Rousseau:** *A Psychological Study.* By J. HAWKES, M.D., Medical Superintendent, Westbrooke House Asylum, Alton, Hants.

The life of the philosopher has for some minds a higher charm than that of a poet—the life of a practical worker a greater attraction than that of a student or dreamer—the career of an earnest living reality more than that of a mystic, or even of a professor of the ideal. The career of the natural phenomenon, whose name heads this article, embraced to a great extent all of these conditions. Born in an age when the dawn of a new creation was already beginning to climb over the hills by which men's minds were environed—at a time when the rude disentanglements, by processes new and strange, were shortly to make themselves felt among the believers in an old faith—when the first throes of the great moral volcano of modern times seemed to indicate but feebly its future terrible force—the mind of young Rousseau buds forth like some fragile blossom of spring pushing its sensitive shoots through the frozen snow on the mountains around his native town.

* “Rousseau,” by John Morley. 2 vols.

Left, by the circumstances of his birth, motherless, from the first hour of his being, he was early thrown on his own internal consciousness and the resources it evoked, in lieu of the tender emotions called forth by a mother's attentions. His mind grew like an untrained tendril, as the fancy of the hour seemed to incline, whether warmed by a burst of sunshine into a precocious development, or chilled by the unkind winds of adversity into bitterness and a perverse love of evil. His only parent, a wild, passionate man, was, we may believe, but ill fitted for the duties of training such a child, and he appears indeed to have abandoned the attempt, preferring possibly to leave the direction and nurture of his son to those who, by destiny or the force of circumstances, were entrusted with the charge. "The child and the man," we are told, "passed whole nights in a fictitious world, reading to one another in turn, absorbed by vivid interest in imaginary situations, until the morning note of the birds recalled them to a sense of the conditions of more actual life, and made the elder cry in confusion that he was the more childish of the two."

Alluding to this epoch in his life, he remarked, at a later day, "I had no idea of real things—nothing had come to me by conception, everything by sensation." When about ten years of age he returned to Geneva, and in the house of his uncle, whose son was his constant companion, he spent two or three years, leading the healthy life of boyhood, when "the simplest amusements were a delight," and then he was called on to accept the hard logic of facts, and embrace a calling. Placed in the office of a notary, the work was entirely repulsive to the unformed and childish mind of young Rousseau; he had little inclination for the dry details of work, while he made no active opposition to its thrall, but being proved incapable of accommodating his thoughts and ways to the requirements of the life, his master thrust him away, complaining of his stupidity and inattention. Next we find him placed, for a brief term, with an engraver, "a rough, violent man," whose habits were peculiarly abhorrent to Rousseau's feelings; here, during his short apprenticeship, he learnt to practise "the vilest and meanest bits of rascality." His better disposition seems to have been frozen over by the harsh and chilling influences to which he was exposed, whilst the worst propensities were called into activity, partly from a low animal desire of self-protection, and partly, no doubt, as a set-off in his own mind to the misery of his situation.

Nothing is more remarkable in his character than that, in many long years after, he could analyse his feelings at that period of his life, and calmly condemn himself for conduct he subsequently disapproved of. In a moment of anguish he released himself by flight, and entered upon another and far more critical stage of being. Now he learns, by experience, the joy of liberty; free from all restraint, he wanders over the hills to Savoy, where very little persuasion induced him to adopt the Catholic faith. This, he argued, was a duty on his part in return for the kindness and hospitality shown him by a priest into whose hands he had fallen. "The kindness with which a man receives us, attaches us to him, it is not to make a fool of him that we give way, but to avoid displeasing him, and not to return him evil for good." This amiable sophistry was probably genuine on the part of Rousseau as an expression of his views of duty to mankind. He was hence duly consigned to a Monastery in Turin, where he was supposed to undergo formal conversion, notwithstanding the secret abhorrence he possessed for the Church of Rome. At Turin he went "regularly to mass, watched the pomp of the Court, and counted on stirring a passion in the breast of a Princess," a sentiment we may believe to have been, on his part, very genuine.

Having quitted the Monastery, and failing to procure regular employment in any business, he entered the service of a lady as her page, but soon after his mistress died, and he was again turned adrift on the world; yet not before he had manifested the weakness of his moral courage in denying a theft that he had committed, and endeavouring to cast the odium of the deed on an innocent servant maid in his late mistress's house. This act of baseness was performed under the influence of mean fear, and not, as Rousseau himself asserted, from a feeling of love for the young woman. Unable to withstand the consequence of the petty act of theft, he committed a far worse one, the remorse of which haunted his memory for life. In his exaggerated emotional state the remorse became unduly intensified, and the lapse of years failed to remove, while they even served to aggravate his self-reproach.

Allured by the temptation of an uncontrolled course of action, and his love of nature, two leading characteristics throughout life, he abandons an excellent situation he had luckily obtained in the house of the Count of Gouvon, and, accompanied by a former acquaintance, whose rest-

lessness of character coincided with his own, started on his return journey to Savoy, travelling on foot a mere penniless vagrant, drawing his enjoyment from the wild scenes through which he passed, heedless of the future. This adventurous expedition brought him, a ragged outcast, back to the house where he had been temporarily lodged previous to entering the religious house at Turin. It was the abode of a Madame de Warens, whose life was to be hereafter blended with his own. "She had points of beauty"—he wrote—"which last because they reside rather in expression than in feature. She had a tender and caressing air, a soft eye, a divine smile, light hair of uncommon beauty. You could not see a finer head or bosom, finer arms and hands." We may here notice the excessive readiness of Rousseau's disposition to receive impressions of beauty; whether in the sensuous relation of sex, or the promptings of nature, he seemed to drink in the sense of the beautiful at every pore. With a mind pervaded with this thirst for all that could appeal to sense, which we may venture to designate as the "lust of the eye," Rousseau was utterly destitute of the power to repress or restrain his longings, or to bridle the appetite and passions of his carnal nature. Whether it was the society of Madame de Warens, or the simple openness of nature's smile in the green and glorious landscape around, his heart drank in with unsatiable eagerness the pleasures he there found. "It was the first time"—he writes—"since leaving Bossey that I had green before my windows; always shut in by walls I had nothing under my eye but housetops and the dull grey of the street. How moving and delicious this novelty was to me! It brightened all the tenderness of my disposition. I counted the landscape among the kindnesses of my dear benefactress—she was present to me everywhere; among the flowers and the verdure; her charms and those of spring were all mingled together in my eyes. . . . I could have passed my whole life, and eternity itself, in this way without an instant of weariness."

This strange whimsical being did not enjoy undisturbed happiness in the society of his "benefactress;" her solicitude for his welfare led to his being instructed in Latin, to fit him for entering priest's orders, but it was in vain; his intellect could not be taught; whatever it received seemed to come spontaneously, and, in despair of ever acquiring sufficient knowledge to qualify himself for the

office of priest, he turned his attention to the cultivation of music. Rousseau had an innate love of music, and perhaps a natural aptitude for it. This was a part of his devotion to the beautiful in objects, as in everything that could touch the senses. But even in the study of music he was unfortunate; whether, as is most probable, it arose from a deficiency in application, or whether the fault lay with his teacher, "he could learn nothing, not even music." His teacher, after a short time, in consequence of a quarrel with his Superior, left the town, and Rousseau left with him. Wandering as far as Lyons, the unfortunate musician fell down in the street in a fit, and Rousseau took advantage of the circumstance to leave him. And now began a career of vagrancy and flagrant charlatanism. Finding that Madame de Warens had quitted Annecy he had no charm any longer in that place, but gave himself up for a time to a life of semi-genteel mendicancy. After wasting his slender resources in idle and riotous company, he wandered to Lausanne, where, says his biographer, "with an audacity that might be taken for the first presage of mental disturbance, he undertook to teach music." "Behold me," he writes of himself, "now a teacher of singing without knowing how to decipher an air." Such a profession could not, however, stand the test of a trial, and we are not surprised at the sudden, total, and ignominious collapse of his pretensions.

Quitting Lausanne, he proceeded further south, still seeking his fortune; thus he wandered alone, and on foot, "craving the rude fare of the peasant's hut, knocking at road-side inns, passing nights in caves and holes in the fields, or in the great desolate streets of towns."

This life of vagabondage had evidently an irresistible charm; abandoning himself to casual impressions, as he says, "Ideas come as they please, not as I please; they do not come at all, or they come in a crowd, overwhelming me with their numbers and their force;" again—"I went on in a sort of ecstasy, surrendering my heart and every sense to the enjoyment of it all, and only sighing for regret that I was enjoying it alone. Absorbed in the sweetness of my musing I prolonged my ramble far into the night without perceiving that I was tired. At last I found it out. I lay down voluptuously on the shelf of a niche made in the wall of the terrace; the canopy of my bed was formed by over-arching tree tops; a nightingale was perched directly over my head, and I fell asleep to his singing. My slumber was

delicious, my awaking still more delicious. . . . I rose up and gave myself a shake, and started gaily for the town. . . . I was in such joyful spirits that I went along the road singing lustily." Light-hearted vagabond! Who might not envy such a buoyant nature, one whom apparently no misfortune had the power to depress, and whom no sorrow could assail?

In a measure this abandonment to outward impressions was the result of an indifference to social ties, and the opinions of those who form the unwritten law of society; he could contemplate nature with reference to humanity, or solely in reference to humanity as represented by himself. Sensitive to the influence of life, yet regardless, because independent, of the influence of that life in others, he delighted in holding communion with the world of nature, and in withholding from communion, beyond what his purpose and necessities entailed, with mankind. Rousseau could live to himself, but it happened when on occasions his sympathies were aroused on behalf of the poorer and more neglected of his fellow beings, the sympathy thus aroused kindled into a flame, the light and warmth of which were felt by a much larger circle than his own, and diffused even into future generations the force and fury of a freshly kindled incendiarism.

It was at Chamberi that Rousseau might be said to have seriously commenced his hitherto neglected education under the indulgent protection of Madame de Warens, with whom he had established fresh relations. This lady, whose ideas of real life were only less visionary and unsettled than those of her protégé, and whose character betrayed a love overflowing with forgiveness to those who had everything to be forgiven, was now residing in the above-named town, supporting, out of her slender resources, the impecunious and incapable Rousseau, and receiving from him in return a nominal assistance in her household and private affairs with an adoration tainted with much offensive passion. The two dwelt in summer time at the farm of Charmettes, a paradise where the unhappy dreamer spent what was doubtless the happiest period of his existence; "but for this brief and precious space," he afterwards wrote, "I should have perhaps remained uncertain about myself, but during these few years I did what I wished to do. I was what I wished to be." "It was," writes his biographer, "the case of a profoundly sensuous nature, with every sense gratified and fascinated." In this

garden of Eden nature and man met in perfect confidence and union; the birds and bees trusted in him, and shared his society; for him the sun opened each day, gilding the ridge of hills on which he dwelt, and calling him forth to worship.

Rousseau's spiritual nature was animated by whatsoever touched his sensual nature. The warmth of the sun, the melody of birds, the glamour of mists and clouds, the richness of foliage and flowers, all that appealed to his senses, seem to have struck a deeper chord, and called forth the resonance of a dim religious feeling. That his philosophy, or religion, was purely deistical, there can be no question; the Creator was the centre of his admiration, but only as considered through the veil of creation. Of revealed religion we find no traces in his description of his own emotions and feelings. His love of nature partook of the same character as his sensual love, it was impressed by what was soft and gentle; a desolate rugged landscape, and the raging waves of the sea gave him pain; there appeared, indeed, in this human phenomenon, a peculiar onesidedness of conduct that ever divided him from the rest of his species, and the morbid hyper-sensitiveness of his character rendered him pre-eminently unfitted for intercourse with the work-a-day world. Steeped in sensuality, intensely selfish, he even descended to the depth of an intrigue with an infamous woman whom he accidentally encountered during a journey, while still living under the protection of Madame de Warens. We, therefore, feel little sympathy with him on finding, when he returned to her house, that his place was occupied by another man, whose appearance filled him with rage. It was irrevocable; Rousseau and Madame de Warens parted for ever.

Again out on the busy world, we see Rousseau supping at an humble inn. The landlady, who rules the roast, is a hard, coarse personage; the guests are probably persons of a similar stamp, and beside these sit Rousseau, the self-conscious absorbed philosopher, and the maid, a household drudge, Theresa de Vasseur. Of a common fibre, and every faculty blunted or undeveloped, there would seem little chance of a nature like Rousseau's becoming entangled in an affair of the heart with such an one, and yet this is what happened. Adopting Theresa as his companion he lived with her for twenty-five years, and only separated when she had grown utterly tired of him, and had acquired tastes for more stimulating and congenial pleasures. There

is no question that Rousseau's devotion to this unlovely woman was wholly sincere and profound. What he found in her to afford him such consolation was as much a marvel to his friends as it is to ourselves. An entire absence of wit and culture, a character bordering on brutishness, a besotted ignorance, and the habits of a low, ill-regulated mind were facts about which Rousseau cared little, if at all. Whether he accepted this strange situation as a protest or act of defiance against society, or whether it arose from a natural debased taste on his part for the grosser elements of animal existence, or whether it is to be regarded as a phase of insanity, a depraved and abnormal feature of the man's understanding, there is no doubt that for a very long space of time he loved her with the warmest and most affectionate attachment. We would gladly pass over the painful proofs of his own abandonment of parental feeling, but the act he committed in consigning his children, one after another, to a foundling charity, as he did, bespeaks a disregard for the duties, and a disavowal of the first responsibilities that a man can fitly exercise. This mean, miserable, and most reprehensible step was in after years the source of much professed self-reproach, but it exactly indicates the selfishness of his sensual disposition.

If, during his residence at Charmettes, Rousseau might be said to have educated himself so far as he ever was educated, it was during the twenty-five years following that episode in his life, and during which he lived with Theresa de Vasseur, that his literary fame was established. The first occasion on which this was determined arose from a public notice issued by the Academy of Dijon, inviting competition for a prize essay on the question—"Has the restoration of sciences contributed to purify or to corrupt manners?" Rousseau rushed eagerly into the field, his whole system ablaze with a sense of the importance he could render to humanity by his discussion on this question. With this ardour and glimpse of truth which, at the time, might have appeared like actual inspiration, we need not wonder that he gained the prize. It was the first of his celebrated "Discourses" which were destined to exercise so momentous an influence in France. Of this, he himself said, "it was the ruin of his life;" there can be no doubt the success led him on to other efforts which were the cause of much misfortune to many beside himself, and had he been saved this first success he might have been spared much subsequent sorrow.

His second "discourse" or essay was not successful in gaining a prize, though its effect on society was no doubt more weighty than the first. The subject was the inequality in the social status of mankind, and its origin, and this he handled in a fashion peculiarly his own. Commencing with an imaginary description of the condition proper to humanity in its primitive condition, he proceeded to show how the decadence of society arose and spread in consequence of the possession of property. The man who first possessed property was, according to his view, the great enemy of his race. "The first man who having enclosed a piece of ground and could think of saying 'this is mine,' and found people simple enough to believe him, was the real founder of civil society. How many crimes, wars, murders, miseries and horrors would not have been spared to the human race by one who, plucking up the stakes, or filling in the trench should have called out to his fellows, 'Beware of listening to this impostor; you are undone if you forget that the earth belongs to no one and that its fruits are for all.'" Hence he argued against the rights of property which enchained the poor, and only strengthened the rich, and for the advantage of a few converted the many into slaves. The result of this teaching, clothed in impassioned language, was seen with terrible effect some time after.

Meanwhile Rousseau, living in Paris, found, as he imagined, happiness in Theresa's society. Thus were passed twelve years of his life; the world around him, by its manifold imperfections, its levity, atheism, badinage, wearisome indulgence in pleasure, and more than all by the claims it made upon his time and attention, tending to alienate him from France, and drive him out a moody self-exiled man, "seeking rest and finding none." It thus happened he came to visit once again the now fallen idol of his early life, Madame de Warens; he discovered her in poverty and distress, and in poverty and distress he left her to die; for this he bitterly reproached himself in after years, though it would seem he unavailingly endeavoured to persuade her to share his home, "his only remaining consolation being the hope of meeting Madame de Warens, and being united to her in another and a happier world."

He had now quitted Paris, sick of its frivolity, its ceaseless vain disputation, and its utter want of religious activity, and was dwelling again in Geneva, where he found

little difficulty in persuading himself of the truths of Calvinism, and was accordingly re-admitted into that form of faith, receiving the Communion, and being made free of his rights as a citizen. On this point his biographer tells us, "he was never a Catholic any more than he was ever an Atheist, and if it might be said in one sense he was no more a Protestant than either of these two, yet he was emphatically the child of Protestantism." This is no doubt strictly true; Rousseau's principles of religion were purely metaphysical; a reverence for the unknown, tinged with some natural gloom and love of solitude. It was the latter sentiment which compelled him, in spite of the remonstrances of his friends, to take shelter in a lonely villa, built for him by Madame Epinay, in the forest of Montmorency, four leagues from Paris. In this sylvan retreat Rousseau led the life of a satyr. Indeed it would seem that his intense and all-absorbing love of nature developed in his moral condition the elements of primæval man to a fearful degree. We learn from his writings how he became deplorably subject to the hallucinations of erotic insanity; an unclean visionary dwelling in an atmosphere tainted with the revolting obscenities of his own creation. And yet from out of this miasma he evolved, through the play of his fine intellectual faculties, the "New Heloisa," a romance written on gilt edged paper, and tied together with blue ribbon, the very ink, we are told, powdered with azure and silver sand. This morbid production seemed for the time to resolve his prurient fancies into a substantial form, and by the very act of intellectual energy it called forth, to save him from a worse fate. Then came his satyr-like passion for Madame d'Houdetot, the wife of one man and the mistress of another, whose fascination led him to various excesses of delirium and insane ravings. Quarrelling with his friends, brooding over fictitious woes, frenzied by his follies, or absorbed in vain regrets, the Philosopher Rousseau presents a pitiful picture of abject misery; at length worn out by vain ungratified longings, hating all, and tormented by physical suffering, he abruptly quitted the Hermitage and repaired to a solitary cottage in the forest, where he made for himself a home.

The "New Heloisa" was finished in 1759, and given to the world two years subsequently; it was followed by the "Social Contract" and "Emilius." The first, it is perhaps scarcely necessary to say, contains the history of a free love conducted under circumstances of refined libertinism and elegant sen-

suality. So great was the demand for the book that a single volume, it is said, was let out at sixpence an hour, and could not be detained beyond that time; and we read that ladies who began its perusal while waiting for their carriage to proceed to an evening party, were so entranced as to be unable to put the book down, and after allowing the equipage to remain at the door till four in the morning, were glad to dismiss the coach, and retired to bed, where the perusal of the work was eagerly pursued. Dressed up in the peculiar sentiments the author's graphic pen could so well depict, the sensation thus created, though of an intensely morbid kind, can scarcely be realized in the material age of our time. Something like it was perhaps achieved by Richardson in his "*Clarissa Harlowe*."

The other pieces which followed were the "*Social Contract*" and "*Emilius*," of which it may suffice to state they were distinguished by those extreme revolutionary and democratic theories which were afterwards so successfully reduced to practice in the outburst of the French Revolution. In issuing these works from the press, Rousseau was in advance of his age, and encountered no trifling danger to his personal liberty. Although under the protection of the Duke and Duchess of Luxembourg, and of Malesherbes, afterwards guillotined, he ran the greatest risk, and when the Parliament (1762) ordered "*Emilius*" to be burnt by the public executioner, and the author to be arrested, he was only saved by the presence of mind of Madame de Luxembourg, who carried him away in the dead of night, and by a precipitate flight placed him in safety.

And now began that dark period of his life, when, hunted from city to city, tormented by bodily suffering, harassed by frightful forebodings and misgivings, he ultimately fell a victim to the mania of suspicion. His constancy and fortitude under these terrible trials are not the less worthy of admiration. We may for a while forget with him the angry tumult of the outer world while we watch him in his humble home at Motiers, in the Val de Travers, where for three years he passed a peaceful existence; but driven thence by the persecution of the priests and the ignorant lower people, he took refuge in the summer isle of St. Peter's, in the lake of Biénne—alas! also in the canton of Berne. Here again, for a very brief period, Rousseau found the repose he so much desired. Of this event he wrote—"What is it that one enjoys in a situation like this? Nothing outside of one's self—nothing

except one's self and one's own existence." "The movement which does not come from without then stirs within us. The repose is less complete, it is true; but it is still more agreeable when light and gentle ideas, without agitating the depths of the soul, only softly skim the surface, and I have thought that in the Bastille, and even where no object struck my sight, I could have dreamed away most pleasurable days." "Why can that life not come back to me again? Why cannot I go and finish my days in the beloved island—never to quit it? . . . Freed from the earthly passions engendered by the tumult of social life, my soul would many a time lift itself above this atmosphere, and commune beforehand with the heavenly intelligences, to whose number I trust ere long to be taken." Whether he would have grown restless and wearied of this life had he been permitted to enjoy it, or become again entangled in the pitfalls of sensuality, or whether there might have come to him an abiding peace, in which he would have passed away to an eternal rest, we cannot say, but such a chance was denied him, and the unhappy man, protesting in vain, was turned out of his retreat, and sent forth to wander afresh, as though the curse of Cain was written on his forehead.

And next we find him in England, befriended by Hume, who said of him—"He is a very modest, mild, well-bred, gentle-spirited, and warm-hearted man. He has an excellent warm heart, and in conversation kindles often to a degree of heat which becomes like inspiration." After a short stay in London, where he became the lion of the hour, Rousseau took up his abode at Wootton, in Derbyshire, a very out-of-the-way spot, where he passed some bitter moments; and here, under the depressing influence of the climate, an alien in a foreign land, without sympathy—which was to his spirit the very bread of life—and brooding incessantly over past misfortunes, the unmistakable proofs of mental derangement announced themselves. Of course he quarrelled with his friend and adviser Hume; one ground of which quarrel, as he states, was the simple fact that while sleeping in the same room he heard Hume exclaim with vehemence, repeatedly in the night, "*Je tiens Jean Jacques Rousseau*," the meaning of which words he subsequently construed into an evil design against himself. Many other frivolous accusations against Hume, to the same purport, only betrayed the impaired state of his reason, warped by calamities and overthrown by his misfortunes. Then followed

an unbappy warfare, carried on by both sides with extreme acrimony and folly, some officiously defending Rousseau, others urging him on to the combat. Out of all this came the celebrated "Confessions;" but the remission their preparation obtained was only for a little while; fresh troubles of the domestic kind arose, and delusions of the most extravagant nature darkened what little light remained. The English nation was plotting against him, his correspondence was violated, his letters read, he was surrounded by unseen enemies to prevent his escape. At length, in a paroxysm of terror, he fled the house, and for many days was lost, till discovered at a village in Lincolnshire; but no sooner was this done than he again disappeared. Then he was "heard of at Dover," the victim of all his old delusions, "watched by conspirators who will not let him leave the country, lest he should divulge abroad the outrages to which he had been subjected."

He goes through the usual familiar formulas, perceives his "last hour is approaching," but is "determined to advance and meet it, and to perish, or be free." Happily the latter alternative was open to him, and having got on board a boat he safely reached Calais. And now for a time, restored to a state of comparative sanity, he enjoys the lucid interval under the generous, though somewhat fantastic, protection of the Marquis de Mirabeau; then for a year he finds a shelter in a country seat of the Prince de Conti, where the mental malady presently returns, the same delusions taking possession of him as before—watchful conspirators around him; even the gardener of his noble host was a spy in the pay of Hume. Watched by these secret emissaries he fled away in despair, and wandered from place to place; inclined to stray to Chamberi he is arrested on the way for a false debt; the error is detected, a mistake admitted, but Rousseau is convinced more firmly than ever that it is but one link in the chain of conspiracy being drawn around him.

Wearied and baffled, he again actually contemplates returning to England; finally, like a bird returning to its nest, he seeks and finds refuge in Paris. Here, we are told, he lived eight years, and here he composed his "Dialogues," and once more resumed copying music for a livelihood. "One morning," writes St. Pierre, who at this time enjoyed frequent intercourse with him, "when I was at his house I saw various domestics either coming for rolls of music, or bringing them to him to copy; he said to some the price is so much, and received the

money; to others, 'How soon must I return my copy?' I enquired why he did not take his talents to a better market. 'Ah,' he answered, 'there are two Rousseaus in the world; one rich, or who might be, a man capricious, singular, fantastic—this is the Rousseau of the public; the other is obliged to work for his living—the Rousseau whom you see.'"

St. Pierre also describes him thus: "He was thin and of middle height, he had a brown complexion, some colour on his cheek bones, a good mouth, a well-made nose, a rounded and lofty brow, and eyes full of fire. The oblique lines falling from the nostrils to the extremity of the lips, and which mark a physiognomy, in his expressed great sensibility, and something even painful. One observed in his face three or four of the characteristics of melancholy; you saw profound sadness in the wrinkles of the brows; a keen and ever caustic gaiety in a thousand little creases at the corners of his eyes, of which the orbits entirely disappeared when he laughed."

Of course Rousseau quarrelled with St. Pierre in consequence of the latter inadvertently presenting him with some coffee. For more than two months they did not meet. Unto the very end of his strange career Rousseau was the Rousseau of early life. "There are days," he wrote to St. Pierre, after their reconciliation, "when I want to be alone, and crave privacy, I come back from my solitary expeditions so calm and contented." At length, however, his health failed him, he sank deeper into penury. Theresa's character had grown from worse to worse, and the unhappy man's closing days were dark indeed and miserable.

Provided by a friend with a residence in the country near Paris, the old terror and delusions again returned; he believed himself in prison. But now came the final release from his worldly woes, and on July 2nd, 1778, Rousseau suddenly closed his account, and died. A cloud rests over the manner of his departure, "but a suspicion," adds his biographer, "has haunted the world ever since that he destroyed himself by a pistol shot." Whether he thus summarily extinguished the remainder of his dream, or died naturally from disease, cannot be known; his corpse was buried by night on a solitary island in a silent lake under the light of a summer moon, and it rested there for a few years till the whirlwind of anarchy bore it off to Paris, amidst the uproar of a social earthquake and the crash of falling thrones.

Throughout his life Rousseau was an unhappy man, judged by outward signs; yet probably his happiness was really more

profound than he himself allowed. That he was selfish, vain, morbidly sensitive, destitute of high moral principles, and wanting in the loftier attributes of humanity, cannot be denied; on the other hand, he possessed virtues of no common order, that flourished like antidotes beside the bane. His simplicity of character, devotion to nature, belief in God, and detestation of frivolity and scepticism were in striking contrast to the degrading passions by which he was tempted and beset, and under which he constantly fell. At one time an austere Puritan, at another a grovelling sensualist, he combined the dignity of the Stoic with the philosophy of an Epicurean, and while giving rein to his grossest feelings he imparted a tone of self-denial to the conditions under which he gratified them. Rousseau was thus a paradox, and his life an enigma with a dark and fearful ending.

Departmental Asylums in the North-West of France. By J. WILKIE BURMAN, M.D., Resident Physician and Superintendent of the Wilts County Asylum.

(Continued from page 552, Vol. xix.)

L'Asile de St. Méen, Rennes.

This asylum is for the male and female lunatics of the Department of *Ille et Vilaine*, who, arranged according to their sex and class, on the day of my visit, were, in numbers, as follows:—

			Male.		Female.	Total.
1st Class	..	<i>pensionnaires</i> ...	17	..	13	30
2nd „	..	ditto ...	8	..	11	19
3rd „	..	ditto ...	16	..	41	57
4th „	..	paupers ..	186	..	236	422
Total ..			227	..	301	528

The Asylum is situated about two *kilomètres* from the centre of the city, on the right side of the road to Paris, just beyond the "*Faubourg de Paris*." It is a plain, old-fashioned building, close to the road, from which it is separated by a high wall. It has symmetrical arrangements for the accommodation of the two sexes, and consists of a central administrative block, with quadrangular blocks of two stories on each side of it, running backwards. Down the centre, between the two divisions, runs a common road

from the entrance quadrangle. As a rule, the day rooms and *réfectoires* are on the ground floor, and the dormitories on the top floor; the quadrangular enclosed spaces being used as inner airing courts. The medical staff consists of a Médecin-en-Chef and Directeur—Dr. Laffitte (who has a non-detached residence in the asylum, and 6,000 francs per annum), and two senior medical students, who act as clinical assistants, and are attached one to each division, and get, besides board and lodging, an *honorarium* of 600 francs per annum each. These “*internes*” are bound to engage for a period of three years; but, during that time, they may proceed to their degrees without renouncing their functions. On the occasion of my visit I found the medical superintendent away for his holidays, and the asylum nominally in charge of a physician residing in Rennes, and who paid a visit to the asylum once a day about mid-day. I went round with the *internes*, however, at their early morning visit, and have to acknowledge their kindness and readiness to afford me all the information I wanted.

The first place visited, as in the other asylums, was the infirmary—the male infirmary in this case, for we commenced on the male side and proceeded round the whole building together. The infirmary ward, which was exceedingly neat and airy, contained a few cases of ordinary sickness, and was looked after by several Sisters of Mercy, about 19 of whom, altogether, are scattered through the wards, acting as charge attendants on the female side and attending to the sick generally. I need not describe the arrangements for the *pensionnaires*, which were excellent, and all that could be desired on both sides. I saw, and entered with the *internes*, a very nice detached pavilion residence in the grounds, with its own private garden, for one patient paying a high rate, and who had special attendance, &c. In the quieter wards we found, on entering, the patients ranged round the room, standing up at attention, cap in hand. They had just finished breakfast, and awaited medical inspection previous to going out to take exercise in the airing courts and grounds. Amongst the *pensionnaires* I saw several clergymen and military men in their own peculiar costumes. The patients were classified as in the other asylums, and, as in them, I found here, that the day-rooms and *réfectoires* of the paupers were bare and dismal looking, though perhaps they were seen to great disadvantage after visiting the quarters of the *pensionnaires*. The male *agités* were, as a rule, untidy

and dressed in all sorts of clothing. Some wore *sabots*, and some boots, and most of them had stockings on. Throughout the building altogether, I saw about five or six cases of restraint with the *camisole de force*. I saw rows of strong rooms, as before described, but they were less commodious and more dismal than at Quimper. Baths and *douches* were freely ordered by the senior *interne* as we went round the male side; and we afterwards saw in the bath-room several of these men getting their *douches*, and other men in warm baths undergoing the hydro-therapeutic treatment, some of them being excited and noisy, and boxed in with only the head appearing.

Passing to the female side, I found the patients, as a rule, much tidier, and the wards of the poor more cheerful—a result due, no doubt, to the energy and activity of the excellent and intelligent sisters in charge. The floors were everywhere waxed and the walls whitewashed. In the wards of “*les agités*,” however, many of the patients were untidy, and several had on neither boots nor stockings, whilst others sat listlessly on the ground against the wall, the ordinary attendants, who wore no uniform, seeming to take little notice of these peculiarities. We passed through a very nice and busy needle-room, where all the women were neatly and uniformly dressed; and, further on, we entered a *salle de travail* of a different sort, in which from twenty to thirty women were busy spinning flax, the spinning-wheels being ranged round the sides of the room, which was commodious and airy. It was a very pretty and, to me, a novel sight: the attendants supervised the patients and their operations from the centre of the room. The dormitories, on both sides, were, as before, all that could be desired; each bed had a special clean covering for the day—an arrangement of doubtful benefit and liable to abuse. On the female side, both in the dormitories and day-rooms, there were a good many improvised shrines to the Virgin Mother. There was a small poor chapel in the central block that would accommodate about 200 patients. The rate of *pension* and maintenance is as follows for the different classes:—

1st Class (exceptional)	Pensionnaires	.....	3000fr.	per annum.
1st Class (ordinary)	„	„	1200fr.	„
2nd Class	„	„	1000fr.	„
3rd Class	„	„	600fr.	„
4th Class	Paupers	„	420fr.	„

The diet of the poor varies somewhat according to the

nature of the day from a religious point of view—as to whether it be a *jour gras* (meat-day), or *jour maigre* (fast-day). Besides getting a liberal allowance of white bread for soup, common bread, and beer or cider daily, the rest of the daily diet of the poor consists of—for breakfast, weak broth or milk; for dinner (on meat-days), strong *bouillon* and boiled meat; and, for supper, soup with dry or fresh vegetables. On fast-days no meat is allowed. Little extras in the way of fruit, &c., can be procured by a small payment, and all working patients get an extra allowance of cider daily. The number of officers and servants in charge of the men is 23, and of the women, 18; and their rate of pay and retiring allowances are much the same as at Quimper. I saw all the usual workshops, and patients busily engaged in them. At the time of my visit there were altogether in the house only 8 general paralytics—viz., 5 women and 3 men; and 32 cases of epilepsy, of which 17 were of the male, and 15 of the female sex. I was told that they had only 5 men in whom the insanity was attributable to excessive drinking. The recoveries and death rate in the asylum are much the same as the average in England. About 1,600fr. are spent in drugs annually. Attached to the asylum is a farm of about 40 or 50 acres, on which about 30 or 40 patients work daily. Since my return Dr. Laffitte has kindly sent me the printed general rules and regulations of the asylum. They are published officially under the direction of the Minister of the Interior, and dated 1859. They are very full and complete, consisting of no less than 25 separate *sections* containing altogether 190 *articles*. As one rather funny specimen of their completeness, I may quote as follows:—*Art. 142, Sect. 20*, appertaining to—*Coucher, Habillemeut et Mesures de Propreté*:—“*Il y a pour chaque lit d'infirmierie une table de nuit, et pour chaque lit de dortoir un vase de nuit en faïence.*” In the same section I find that, instead of using soft India-rubber *pots de chambre* for violent patients requiring single rooms, “*les vases de nuit des cellules sont en métal, sans anse.*” Both on account of their fulness and their general applicability to all the French Asylums, these rules are very interesting, and I may return to them on another occasion.

L'Asile de Pontorson.

This asylum is situated at Pontorson, close to the river “Cowesnon,” which divides Brittany from Normandy; and, though on the Brittany side of the river, it is built for the

accommodation of the male and female insane of the Department of *La Manche* in Normandy. At the time of my visit it contained about 350 patients altogether, 200 of these being men, and 150 women, divided, as usual, into four classes, there being about 80 *pensionnaires* altogether. Thanks to his kindness, I was permitted to make the medical visit, at 7.30 p.m., along with Dr. Billet—the “*Médecin-Directeur et Préposé responsable*” of the asylum—who is the sole medical officer of the institution, and lives in a detached house near the asylum, receiving 3000fr. *per annum*, with board and lodging, in return for his services.

The building is of Caen stone, and consists of two symmetrical blocks branching off from a central administration-block, and it looks old-fashioned as it stands in its grounds close to the main road, from which it is separated by an open space and tall iron railings. As in the other asylums, I found the arrangements for the *pensionnaires* excellent, and those for the poor not so good as with us. Breakfast had everywhere just been cleared away, and as we entered each ward we found most of the patients ranged round the day-room, as before described, for medical inspection. As in the other asylums, the day-rooms and *réfectoires* were on the ground floor, and the dormitories generally on the top floor—the building everywhere being of two stories high. Each ward seemed to have its own airing court. The floors were generally waxed, and the walls whitewashed and bare. The dress of the male patients was more or less of a uniform nature, consisting of a straw hat, blue blouse and trousers, and *sabots* or shoes, with or without stockings. There was the usual infirmary, and arrangement of the patients in wards according to their nature. Amongst the worst male patients I noticed four or five cases of restraint; but, with the exception of one who was tied to a chair, and the chair fixed to a window-sill, they were all free to walk about in the airing courts, the arms simply being confined in the close sleeves of a canvas strait-waistcoat. During the course of my visit I saw several English male and female patients from Jersey and Guernsey, all of whom were *pensionnaires*. In a central situation were situated the bath-rooms and the inevitable *cellules*. The baths were in use by patients undergoing the warm bath treatment, several of them being noisy and boxed in to the baths. We passed through the female bath-room, after knocking at the door, and found it in similar occupation, and held a conversation with the heads of two female

patients as they appeared through the holes in the wooden lids covering the baths. They did not seem to relish much the hydro-therapeutic treatment.

The *cellules* were entered from a yard, and presented a very prison-like aspect, on account of their massive and heavily-barred doors. On going out into the yard, on the male side, I, at first, took the *cellules* to be stables, for I saw a lot of straw outside one of the doors, which was open, and, within, a man using a mop and bucket; but on going into the *cellule*, I found that the floor was wooden and waxed, the room itself commodious, and the bedstead of wood, though fixed to the floor. Only one of these *cellules* was occupied at the time of my visit, and that was on the female side, the patient being dressed, and conversing with us through a grating in the door. There are about half-a-dozen of these *cellules* on each side of the house. Amongst the excited women I saw a good many untidy patients, and 5 or 6 cases of restraint. Several of the women lay listlessly on the ground in the airing court without either shoes or stockings on. In the oldest parts of the building large bars of iron, about one inch in diameter, crossed and recrossed the windows, giving them a very prison-like appearance. In one of the wings of the central block is a small chapel, which would accommodate about 150 patients or more. There are about 34 attendants altogether (not including 4 out-door men) in charge of the patients, 17 on each side, besides 12 Sisters judiciously distributed throughout the building in the male infirmary and on the female side of the house. This is a large proportion, and can only be explained by the presence of *pensionnaires*, who require and get much more attendance than the paupers generally. The male attendants get board and lodging and from 100fr. to 150fr. *per annum*, and the females from 75fr. to 100fr. *per annum*. These wages seemed so ridiculously low as compared with ours, that I got Dr. Billet to repeat the amounts to me more than once. There was very little general paralysis in the house at the time of my visit—only four or five cases altogether; but there was a large number of cases of the “*délire de persécution*,” as Dr. Billet termed it, principally due to alcoholic excess. Opposite to the asylum, on the other side of the road, is a fine kitchen garden of about eight acres in extent, in which both male and female patients were working. Including this garden and the adjacent farm, the asylum

possesses altogether about 200 acres of land, on which about 80 male and female patients work daily.

In concluding these very crude and rather disjointed notes, I may just, perhaps, draw attention to a few points common to all of the asylums visited. It would appear to me that they are behind the times, in many respects,—as to their use of restraint, their retention of those prison-like cellules, and their treatment of the poorer classes generally; whilst they excel in their bathing arrangements, dormitories, and *lingeries*, as well as in the state of their farms and gardens, and the numbers of patients employed thereon. The prominence given to the hydro-therapeutic treatment of insanity has, no doubt, a good deal to do with the admirable condition and completeness of their bathing arrangements.

As to the restraint and condition of the patients generally, I must say that in most cases the instrument of restraint was not formidable, and did not prevent free locomotion, the arms being merely restrained in the blind sleeves of a light canvas waistcoat; and both in this respect and as to the condition and appearance of the patients generally, these Provincial Asylums contrast favourably with the older Asylums of Paris, viz., Bicêtre and Salpêtrière, and approximate more to the state of things found to exist in the more modern Parisian Asylums, viz., *L'Asile de St. Anne* (in the South of Paris), and those outside the walls at Vaucluse and Ville Evrard, which, I believe, in their turn, can more than any other asylums on the Continent be fairly compared with our own County Asylums. Though some of the *réfectoires* were tolerably large, yet in none of these Breton Asylums did I meet with any of the large dining or amusement halls, which are now so common in English Asylums.

With regard to the salaries of the officers and servants in these asylums, one cannot help being struck by their smallness as compared with those in our asylums. I am at a loss how to account for it, unless it be due to custom, low cost of living, and smallness of wages generally in these departments. As in our own country, the asylums are governed by the *Médecin-Directeur* under a *Commission de Surveillance*, composed of the notables of the surrounding district. They are yearly visited by a member of the board of *Inspecteurs Généraux*, located at Paris, whose reports are made in writing to the Minister of the Interior, but not printed. The annual

reports of the Medical Superintendents are made to the *Préfets* and, likewise, not printed.

As to the separation of the sexes, which I noted in two of these Breton Asylums, and have observed at Rouen, and in the older Parisian Asylums, and which I believe to be very common in France and almost peculiar to it, I was curious enough to ask some of the Superintendents of these Breton Asylums if they could assign any *raison d'être* except custom for the common separation of the sexes as observed amongst the French insane. One of them said to me in regard to this point, "I think, in fact, with other alienists, that the collecting together of the two sexes in one asylum offers much inconvenience, and in spite of the most rigorous supervision it would expose us to certain unpleasantnesses; the cries of one sex might produce troublesome excitation '*excitation facheuse*' in the other." Another replied that (as is quite true) "the sexes are associated together in a good many asylums in France, and, as for me, I believe that such association of the sexes is to be preferred so long as the asylum is not thus rendered too large and crowded." Another informed me that it was only in France that this system was at all adopted, and there principally in the larger and more important Departments, where the association of the two sexes would render the population too bulky. This separation of the sexes and the opinions above quoted are, it appears to me, entirely at variance with our English notions as to the best and most economical way of treating the insane.

CLINICAL NOTES AND CASES.

A Chapter on Broken Bones. BY T. L. ROGERS, M.D.

The subject of fractures, especially of fractured ribs, occurring in the inmates of asylums, is one on which many of the members of the Association may be of opinion that enough has already been written.

It must, however, be conceded that a narration of the experience of any medical officer of an asylum on this subject is better given to the world at the present time, even if it excites less interest, than at a time when public attention is excited by reckless denunciation of the treatment of lunatics in general, and when any statements are liable to be regarded in

the light of an excuse or defence of the conduct of those unto whose care the insane are committed.

Moreover, in almost all cases, injuries to the insane (especially fractured ribs) have, to a certain extent, a medico-legal aspect; their mode of occurrence is rarely actually witnessed by a medical officer, they are often ascribed by patients, without any ground whatever, to violence employed by attendants; and the plea has been even put forward that any injury that a patient has sustained should, unless complete evidence to the contrary can be adduced, be attributed to negligence or misconduct on the part of attendants.

A similar plea was put forth some years ago with regard to the peculiar tumours of the ear to which the insane are liable, and it was asserted that by holding attendants responsible for these, their occurrence might be prevented. The researches of Dr. Brown-Séquard, and his observation that guinea-pigs, in whom epilepsy had been produced by experimental injury to the spinal cord, were liable to the same affection, have tended to correct erroneous conclusions on this point.

I propose to give an account of all the injuries to bones that have occurred to patients under my charge during the last three years.

I limit the retrospect to three years, because, in 1870, I published a paper on the same subject in the "Liverpool Medical and Surgical Reports," and it is unnecessary again to refer to the cases there detailed.

As a careful examination of the chest is made in all patients who appear to be ailing, whether symptoms indicate disease or injury, or not, and as a *post mortem* examination is made in all cases of death (unless strongly objected to by the friends), it may be assumed that no fractures of ribs have escaped notice.

CASE I.—J. L., aged 24, a tall, muscular Irishman, whose previous occupation had been fireman on board an Atlantic steamer, was admitted August 20th, 1870, suffering from mania brought on by drinking to excess. On account of his great excitement and violent propensities, he was generally placed under the care of a special attendant, who, with the assistance of another patient, took him out walking in the grounds apart from other patients. On Sept. 28th he complained of pain in the chest, and being at the time in a quiet mood, I was able to examine him with the stethoscope, and found a fracture of the third rib on the right side. There was some swelling and slight discoloration of the skin over the spot.

How the injury was produced I could not positively ascertain, but the man, when walking quietly along, would sometimes make a sudden "lunge" forwards, and on the previous day, in doing this, he was reported to have slipped from his attendants' hands, and to have gone down head foremost, bruising his face against the ground.

The upper portion of the chest, on the injured side, was strapped with roborans plaster spread on moleskin, which, however, was removed every night by the patient until it was protected by a closely fitting waistcoat, made of strong canvas, without sleeves, and fastened behind with leather thongs.

On October 20th a limited extent of pleurisy was discovered about the seat of fracture, for which a small blister was applied. About the same time he acquired a habit of hammering his head against the door of his room at night, and matter formed under the scalp, which was evacuated by the lancet, but the wound continued to discharge for some weeks; it had healed before his death, which occurred on November 14th, from an attack of pneumonia.

At the *post mortem* examination the 2nd and 3rd ribs, on the right side, were found to be fractured, and in place of bony union they were incased in a thick fibrous sheath which was adherent to the pleura and lung, the lung itself being sound on that spot, but the lower lobe and the whole of left lung were in a state of hepatization; a large portion of the frontal bone was denuded of its periosteum, but was not incased.

There was no apparent alteration in structure of the ribs, and the sound ones sustained a fair amount of pressure.

CASE II.—T. L., aged 55, a tailor, admitted December 29th, 1868. A very tall, gaunt, attenuated, and wretched looking individual, suffering from melancholia, and believes himself to be dead, but does not wish to be buried. Lungs tuberculous, but no softening.

Very little improvement took place in this patient; he could with difficulty be persuaded to take any food; he suffered from repeated attacks of dysenteric diarrhœa, and the lung disease progressed, but he was up and dressed daily when not suffering from diarrhœa, till March 13th, 1871, when I directed him to be kept in bed on account of his weak state, and fearing that he might fall or be pushed down and sustain some injury—his great height (6ft. 3in.), and his extreme emaciation rendering such an accident imminent.

Previously to his being put to bed I examined his chest to assure myself that what I apprehended had not already occurred.

Two or three days afterwards the Assistant Medical Officer, on examining him, discovered a fracture of the 2nd rib—no external mark of injury was perceptible. The patient died on the 23rd March of tuberculous disease.

At the *post mortem* examination the 2nd rib was found to be broken through, and the 3rd had a "kink," resembling a so-called green-stick fracture.

The ribs were so extremely thin and soft that they were easily cut through longitudinally with scissors, the external layer of osseous tissue being no thicker than a playing card—the interior being filled with a red semi-fluid matter.

CASE III.—T. W., aged 59, a joiner, admitted May 16, 1870, with delusional insanity, with occasional excitement, and described as dangerous; his brother had previously been a patient in the asylum.

This patient soon improved, and six weeks after admission was working steadily at his trade; but a delusion that a conspiracy had been formed against him by the relieving officer still continued. He was steadily employed at his trade till November, when, having been able to suppress his delusion, if not actually convinced of its unreality, he was discharged on trial for a month.

He immediately obtained work, and was going on very satisfactorily, till a few days before the month expired, when he got drunk, and in presenting himself for his final discharge, he was in such an excited state, that I detained him in the asylum for a few days for observation, but not being under very close restriction, he went beyond bounds and had another drink, after which he became quite maniacal, and has continued so till the present time.

On July 26th, 1872, my attention was called to a slight swelling at the inner third of the left clavicle; this swelling (which had not existed on the previous day), was of somewhat doubtful character, but a careful examination enabled me to detect a division in the bone, though both ends were in perfect apposition, the swelling being confined to the skin and periosteum. The nature of the case was made clear on the following day, when the usual "riding" of the broken ends was apparent.

On asking the patient how it was done, he immediately accused the attendant of having struck him, and, being very excited, he hit out freely with his right at all comers.

I had no reason whatever for believing that his account was correct, and in the absence of any other explanation, I attributed the fracture to irregular muscular contraction. He would keep no bandage on, but the fracture united notwithstanding. Five weeks afterwards he was found to have sustained a fracture of a rib, and on two subsequent occasions, viz., Feb. 12th and April 1st of the present year, a similar injury was detected, without any satisfactory explanation of the mode of occurrence.

On one occasion he accused another attendant of striking him because he would not go into his bath, and his account of the occurrence (which had only just taken place) seemed to me so like the truth that I questioned all the other patients who were present, but they all contradicted his statement, one of them adding that it was he himself who objected to the bath.

At present this man is "master of the situation," he is destructive, dirty, and turbulent; if I send him into a ward among able-bodied

patients, he invariably is returned to the infirmary with a broken rib or some other injury, whilst to keep him among the sick and feeble exposes them to violence from him, as he is not particular whom he strikes—patients, attendants, and even occasionally the medical officers sharing his attentions in this respect. Meanwhile all medicinal treatment has failed alike in improving him, with the single exception of the hypodermic employment of morphia, which he believes to be vaccination, and so submits to kindly ; indeed, but for the success of this remedy, I believe I should have made him an exception to the non-restraint system, and should have secured him to the bed to insure some repose in the horizontal position, for want of which (at the time that his clavicle was fractured) his legs were swelling nearly as high as the groin, and his strength was becoming exhausted.

This case is also interesting as a set-off to what have been called “Asylum-made lunatics.”

Here is a man who, whilst under the restraint of an Asylum, behaves in an entirely rational manner, and, doing a good day's work, may be regarded as a producer instead of a consumer. The stability of his condition is tested by a month's liberty, which allows opportunity for a debauch, the consequences of which are that all the benefits of seven months' treatment are dissipated, and, for the next two years or more, he becomes a consumer and destroyer instead of a producer. I could instance several cases where the mere leaving the Asylum, or even the apprehensions of it, have produced similar results, though in a less degree.

CASE IV.—M. H., an Irish labourer, admitted April 9th, 1872. The history of this man was, that he had been in the army, and had been severely wounded at the Siege of Delhi ; that he subsequently obtained regular employment in Liverpool, but having on one occasion had too much to drink, the “furor” for intoxicating liquor became so strong that he disposed of everything he possessed, and drank the proceeds, till, having nothing left, he sought refuge in the work-house.

When admitted into the Asylum he was in a state of dementia, with great motor instability, his muscular condition resembling that of general paralysis ; he was dirty in his habits, and extremely prone to fighting. On the 18th August (Sunday) I observed that he had a bruise on his face, and his appearance generally indicated that he had been engaged in a skirmish during church service, and, on stripping him, I found that he shrank from my examination of the right side of the chest, but I could detect no fracture of ribs.

Subsequent examinations shewed dulness and absence of respiratory murmur over a portion of the right side. He was kept in bed (seclusion) for three months, and then, as he had improved much in bodily condition by this long rest, I ordered him to be dressed, although the lung was still deficient in resonance.

On the very first day he was dressed (November 20th) he had a

passage of arms with an old antagonist (a case of advanced general paralysis), and, during three weeks that he remained up, he had repeated skirmishes with other patients, generally for possession of the fire-place, and on December 13th, having had his head cut with a slipper, he was remitted to bed. On the 18th I discovered that he had besides sustained a fracture of the 8th rib (right side) in two places, which, no doubt, had been done some time previously, but, owing to the condition of the lung, previous examination had failed in detecting it. All applications were torn off as soon as applied, and on the 25th December the patient became suddenly worse and died.

The *post mortem* examination showed that one end of the broken rib had penetrated the chest, and caused an abscess, which being restricted by old adhesions of the pleura, was limited in extent, and permitted the admission of air freely into the posterior portion of the lung, up till the day of his death.

The examination of the brain showed that a bullet had almost penetrated the skull immediately above the left orbit, forcing in a circular portion of the inner table, the size of a small gun wadding; the outer table was absent, so that the thickness of the skull in this spot was reduced to the 16th of an inch.

Opposite this wound the brain presented a circumscribed patch of yellow softening or ulceration.

It is not probable that this ulceration had existed ever since the reception of the gunshot wound, and all through the years that the man had been steadily employed in Liverpool; the inference to my mind being that his recent debauchery had lit up new disease on the site of the old injury and originally damaged portion of the brain, at the same time that all his natural pugnacity had progressively increased with the advancing disease.

Anticipating the criticism which would ask how such accidents can happen, and such combats take place in the presence of attendants, I would merely observe that one must be acquainted with the character of the majority of my patients, and their innate love of fighting, generally exaggerated by disease, and unrestrained by any prudential considerations either for themselves or others, before anyone is competent to say that such cases can be entirely prevented, except, indeed, by materially diminishing the number of patients in a ward, and increasing the number of attendants. The exigency of the demand for accommodation prevents the former, and the consideration of cost sets a limit on the latter, whilst the bugbear of seclusion induces one to refrain from separate treatment except in cases where the patient's actual condition is considered to require it.

CASE V.—R. W., an epileptic patient, of very violent character, who had been in the asylum several years, was observed to move his right arm with difficulty on Nov. 1872. On examination the shoulder was found much swollen and discoloured, and a fracture of the anatomical neck of the humerus was discovered.

On questioning the patient, he at first said that the attendant had given him something in his food which had caused it, and afterwards that it was done by lying with his arm stretched out when asleep on a form.

There was little doubt that this occurred by falling in a fit, and this view was supported by his subsequently falling on the same side of the head when the arm was secured to the side.

CASE VI.—J. T., a recent admission, was found to have sustained a fracture of a rib on June 20th, 1873.

He could give no account of how it occurred, but merely stated that he had one broken in another Asylum, where he had previously been confined. This patient has since been discharged recovered.

CASE VII.—E. W., aged 33, a case of general paralysis; admitted in May, 1871; took some pieces of carpet into an airing court to shake with another patient, on June 11th, 1873.

Whilst she was in the act of shaking them an attendant saw her fall backwards on the grass, and on going to her to lift her up found her unable to walk, and, procuring assistance, she carried her into the ward, when it was found that her leg was fractured.

On my being sent for I found the tibia fractured obliquely close to the ankle joint, and protruding five inches through the skin.

I was puzzled by the appearance of the end of the bone, from which the periosteum had been stripped back, the bone itself being blackened; and, on examining the patient's dress, two triangular holes were seen, the edges of which were stained with blood and gas tar.

It was evident that she had attempted to walk on some newly laid asphalt which was close to where she fell, and traces of blood were found on this.

The fibula was broken at the upper third, and the lower portion protruded through the leg. As there was considerable venous hæmorrhage I at once amputated the leg, although the arteries were uninjured.

The case did well, and the patient seems to have taken a new lease (a short one) of life.

Unless this accident had been witnessed by competent witnesses, or the sufferer had been in a condition to give a faithful account of it, such a serious result from so slight a cause could scarcely have been credited.

CASE VIII.—Mary W., an epileptic patient, was found on December 5th, 1873, to have sustained a fracture of the clavicle. It was not discovered till after union had commenced, and the manner in which it occurred is only conjectured.

During the last summer a woman died who had been the subject of millites ossium. After her death ununited fractures of one femur and one humerus were discovered. She had been confined to bed for upwards of ten years, and the fracture of the humerus occurred about

four years before her death. Although her intellect was remarkably clear as to current events, she was quite unable to give any account of how the fracture occurred. (This case was mentioned in my paper before alluded to.) In connection with these fractures was a dislocation of the spinal column between the dorsal vertebrae, but as she had never suffered from paralysis this must have been a gradual process. Her death was at last occasioned by an acute attack of pleurisy, which, with her extremely limited breathing space, rapidly proved fatal.

In addition to these cases there have been three of fracture of the neck of the thigh bone in the three years, all occurring in old people, and produced by falls; and one case of Collis's fracture in a young German, caused by precipitating himself into an area. This patient was taken home by his brother two days afterwards.

My experience of spontaneous fractures occurring in sane persons is somewhat limited, but two cases which have come under my notice may fitly be recorded in connection with this subject.

An attendant, aged about 28, was practising cricket, and whilst in the act of throwing in the ball his arm dropped powerless by his side, and the ball went off at a tangent. I had just come on the ground, and as he complained of being hurt, I examined the arm, and found a fracture of the humerus. He had been invalided from India, and had complained of rheumatic pains in that arm. The bone united readily, and the man subsequently became a fair round hand bowler.

The other case was that of a sergeant in the Coldstream Guards, who fractured a rib (the 11th) in the act of coughing. I saw this man immediately afterwards, and he was also seen by the late Mr. Weeden Cooke, who was in attendance on the sergeant's wife, and who subsequently reported the case in the "*Lancet*."*

I am strongly inclined to believe that simple fractures of ribs are injuries of which little account is taken by working men in good health, and that probably a large proportion of them never come under the cognizance of the surgeon. Some cases which have come to my knowledge lately, seem to bear out this view. The Medical Director of a large asylum mentioned a case to me which occurred a few weeks ago, in which he found a patient with a fractured rib, which he said had been done by an attendant throwing him down. The attendant was out the next day, and on being brought up for judgment on the day following, he said that instead of his throwing the patient down the patient fell on him, and he believed that he was the most hurt of the two. On examining him my friend found three ribs broken, yet the man had taken his "day out" before complaining.

An old gentleman, who had also been connected with the same establishment, about the same time fell off his chair, and after his

* In a paper by W. Carran, Army Medical Department, published in the "*Lancet*," August 9th to 30th, 1873, is a record of several cases of spontaneous fracture of the clavicle as well as of the long bones.

death it was found that he had fractured three ribs. I met a gentleman at dinner last week, who told me that his brother, whilst engaged in a field day during the autumn manœuvres, fell off his horse at 9 a.m., but remounted and continued his duties till 2 p.m., although, as ascertained afterwards, he had broken three ribs and a bone of one arm.

If this view be correct, the extravagant hypotheses that were lately put forth to explain the occurrence of fractured ribs in insane patients would seem to be more creditable to the imagination of their supporters than to their surgical knowledge or sagacity.

It will, perhaps, be urged that in the cases I have enumerated, only one or two ribs were found broken, whilst in previous cases the number has been much greater.

I think that this may be explained by the fact of the injury in my cases having been almost immediately detected, and further mischief being guarded against; for there can be no doubt that the mechanism of the thoracic frame being once damaged, a second fracture may be more easily produced than a first, just as may be observed in machinery, that when one cog of a wheel breaks, it is quickly followed by others, offering another illustration of the familiar axiom, "Ce n'est que le premier pas qui coûte."

Phosphorus in Melancholia. By S. W. D. WILLIAMS, M.D.,
Medical Superintendent of the Sussex Lunatic Asylum.

Phosphorus is rapidly becoming a favourite remedy in certain forms of disease of the nervous system, and has been strongly recommended in melancholia. I am not aware that there is any authentic record of its effect in this disease, and, therefore, think a brief *resumé* of half-a-dozen such cases, treated in this Asylum lately by phosphorus, may be acceptable to the readers of this Journal.

One great objection to the use of phosphorus is the difficulty of administering it pure. Solutions of the metalloid in oil or ether are extremely unpleasant and nauseous, and this is a very serious objection when dealing with the insane, who are so prone to refuse food and medicine. I have, therefore, used the pills prepared by Messrs. Kirby and Co., which are stated each to contain the thirtieth of a grain of pure phosphorus. Mr. Ashburton Thomson, in the "Practioner," doubts the efficacy of these pills, but I cannot say I agree with him. It cannot be doubted that they contain phosphorus, for if you cut a pill open in the dark the characteristic smell and luminosity are very marked.

A perusal of the cases recorded below will show that a certain amount of success has attended on the use of the

phosphorus in two cases of pure melancholia, but that in the third it totally failed, as it did, to a great extent, also in a case of melancholia attonita. Neither was its use in the locomotor ataxy case very promising. Still, altogether, I think that a sufficient measure of success was obtained to justify a more extended trial of its use in other cases.

Phosphorus is said to be accumulative, to produce dyspepsia, loss of appetite, and debility, and to have aphrodisiac effects, but if so, these results must be caused by larger doses than I employed. Case No. 1 had diarrhœa about ten days after the phosphorus was omitted, but that can scarcely have been due to the medicine. Dr. Eames states that this medicine produces a coated state of the tongue, "not unlike the silvery tongue which follows the prolonged use of arsenic." I can fully bear out this statement. All the cases recorded below, without exception, exhibited this state of tongue within a few days of beginning the medicine.

In each case I commenced with one pill ($\frac{1}{30}$ gr.) twice a day. This was increased in some cases to three or four pills daily. None of the toxic effects described by Dr. Anstie, in his interesting case of "Slight Poisoning from the Medical Use of Phosphorus" ("Practitioner") were observed in any of my cases—except a slight sense of warmth at the epigastrium.

CASE I.—J. F., male, æt. 51 years, married, agricultural labourer. Admitted 6th Sept., 1873. No hereditary taint, but father given to drinking; first attack; has been gradually coming on for twelve months; supposed to be caused by dismissal from employ by a master, with whom he had worked for many years. On admission he was in a state of pure melancholia, apparently uncomplicated with delusion. His state of wretchedness and misery was pitiable in the extreme, and he was constantly on the look-out for some means of destroying himself. His bodily health was fairly good. His nights were almost entirely sleepless, and he was treated after admission with chloral. This gave him temporary relief, but he became worse again, and on the 27th Sept. the chloral was changed for opium and chloric æther, after which he began to refuse his food, and on Nov. 12th, being no better, he was ordered $\frac{1}{30}$ of a grain of phosphorus night and morning. Within a few days the depression became much less, and by Dec. 12th had quite left him.

Result—Recovery.

CASE II.—J. B., female, æt. 30 years, single. Admitted 6th June, 1873, when she is described as having a restless manner, and constantly wandering about day and night; as having great lowness of spirits without any apparent cause, and as expressing herself as being fearful she shall destroy herself to escape from her misery, although

she is unable to assign any cause for her dejection. Menstruation regular; bodily health fairly good. Was treated with chloric æther and opium, and with chloral. The attack lasted 70 days, and on August 17th she was reported as recovered. On August 28th she relapsed, and remained ill nearly as long, but by November 27th was considered well enough to be brought before the Committee for discharge. The excitement attendant on the prospect of regaining her liberty was too much for her, and she relapsed before she could be removed from the asylum. She was now put on phosphorus, and the attack only lasted 27 days, since when (two months) she has remained cheerful and well.

Result—Recovery.

CASE III.—J. B., female, æt. 54 years, widowed. Admitted 15th November, 1873. Disease was stated to be hereditary, and to have lasted five months. On admission she was very greatly depressed, and her expression was one of most intense anxiety. She stated that she was not fit to live, and that she had a constant desire to commit suicide, but apparently she had no delusion. This case seemed so closely to resemble the two previous ones that it was hoped that the same treatment which had proved useful in those cases would be equally efficacious in this one, and she was consequently ordered phosphorus soon after admission. It was persevered with until January 5th, 1874, viz., seven weeks, but without any benefit. She remained in the same state of intense misery as on admission, and her nights were so sleepless that her general health began to suffer. The phosphorus was therefore omitted, and she was ordered opium. The benefit was almost immediate, and she is now (February 10th) convalescent.

Result—Failure of phosphorus, success of opium.

CASE IV.—E. T., female, æt. 33 years, single. Admitted 9th October, 1873, in a state of melancholia attonita, with a strong suicidal and homicidal impulse, but little history could be obtained. For some time after admission she remained quiet, but very dejected, and her bodily health being indifferent, she was treated with stimulants—iron and codliver oil. But, though she got stronger in body, she became decidedly worse mentally, and was at times extremely violent, although invariably preserving an aspect of profound dejection. On November 18th phosphorus was prescribed, and, up to December 20th, she so far improved as to be able to employ herself in the laundry; but on that day she began to relapse, and refusing to take the pills, they were not persevered with. Since then there has been no improvement; on the contrary she becomes, in many respects, worse.

Result—Partial benefit, not maintained.

CASE V.—M. O., female, æt. 27 years. Admitted 7th February, 1874. This is the first attack, and has lasted ten days, and is stated to be due to excessive attention to her religious duties. On admission

she was in a state of religious exultation, and had delusions on religious subjects, but in the course of a day or two she became very depressed, and slept but little at night. Chloral gave her rest for a night or two, but soon lost its effect, and opium was tried without benefit; indeed, she seemed to be lapsing into a state of melancholia attonita. On the 17th phosphorus was ordered; on the 22nd she was much improved, and the tongue had the silvery white appearance already described as due to this medicine. This case is still under treatment, and there is every prospect of recovery.

Result—Probably recovery.

CASE VI.—G. W., male, æt. 39, widower. Admitted 23rd July, 1872. Supposed cause, intemperance both in smoking and drinking. When admitted he was suffering from acute mania, supervening on gradually increasing impairment of the powers of movement of the lower extremities, which had been put down to paralysis, but was evidently due to locomotor ataxy, and was quite independent of the mental symptoms.

The mania gradually, and ultimately entirely passed away, but the ataxic symptoms slowly increased. He remained sane for many months, indeed up to December 30th last, when he became very depressed, indeed quite melancholic. Phosphorus was therefore ordered, and the mental symptoms have passed off, but there was no improvement in the locomotor ataxy.

Result—But little benefit.

Notes of a Case of Tubercular Meningitis in an Adult without Tubercles in the Lungs. By OSCAR T. WOODS, B.A., M.B., Senior Assistant Medical Officer, Warwick County Asylum.

Emma Daffern, æt. 16. Admitted September 3rd, 1870. Idiot.

History.—Schedule states, "Has little knowledge of time or place; says she is six months old, and that her sister (æt. 4) is 19," &c. Has always been a very troublesome child; went to school in early childhood, but had to be removed as she beat the other children. For the past nine years has gradually been getting more vicious and troublesome, and now she bites or beats everyone in the house with her. If displeased tears her clothes; can sew, but breaks the needles when she fancies she has done enough. No consanguinity of parents. Brother died of phthisis.

State on Admission.—A short, strumous looking girl, dark hair, brown eyes, cranial development is bad, forehead low, palate highly arched, little facial expression. Says she is six months old, that she has five fingers altogether; can count up to 10; when asked the days of the week, says Sunday, Saturday, Friday, Sunday.

During her stay in the asylum, although at times ill-tempered and

vicious, she, on the whole, gave little trouble; was exceedingly impulsive, occasionally would jump up and strike those sitting near her without the slightest provocation; attended school, and improved a good deal. The following note was made a short time previous to her last illness:—"Grown very strong and well of late, is very industrious with her needle, and makes herself useful as a ward-helper."

Sept. 17th, 1873.—Has been complaining for the last day or two; to-day she is confined to bed, and complains of headache, lassitude, diarrhœa, vomiting. The pulse is 120 and weak, and the countenance flushed and anxious.

Sept. 20th.—Diarrhœa and vomiting have now subsided; patient lies in bed not caring to speak, is annoyed by the light, and when questioned complains of pain in the head; grinds her teeth when dozing, frequently starts up frightened; pulse 60.

Sept. 24th.—Very drowsy, but when spoken to brightens up for a few seconds, and expresses herself as "better." The skin is very hot and dry, and the bowels constipated. Complains much of pain in the head; there is marked internal strabismus of both eyes, together with twitching of the muscles of the upper eyelid; pulse 80, feeble.

Sept. 26th.—Rest is to-day much disturbed, starts at the least noise, very delirious at times, but still knows those about her; memory greatly confused; answers questions in monosyllables. There is a good deal of twitching of the muscles of the face, both sides being equally affected. Strabismus continues well marked; pulse 120, feeble and intermittent.

Sept. 28th.—Gradually getting more drowsy, can to-day scarcely be roused, has had two convulsive seizures, the left arm and left leg being most affected.

Sept. 29th.—Lies in a comatose state, cannot recognise anyone about her, has had two or three more "fits," the left arm being most convulsed, the left leg but little. Twitchings of face almost continuous; pulse 132, very feeble.

Sept. 30th.—Convulsive attacks more frequent, but not more general in character; keeps up a continuous muttering, has had no sound sleep for some days. Motions since yesterday have been passed unconsciously.

Oct. 1st.—Died at 1 a.m.

Autopsy.—Thirty-three hours after death. Body well nourished. Rigor mortis present in upper and lower extremities. Bones of skull thin and diaphanous; dura mater adherent to calvaria along the course of the longitudinal groove. Arachnoid at base and over cerebellum is opaque, thickened, and of a dirty green colour; there is some general sub-arachnoid effusion. A flaky deposit of lymph covers the circle of Willis and pons. The pia mater lining the fissure of Silvius is adherent to the sides of the convolutions, and is studded with minute granular bodies.

The course of the middle cerebral artery on the *right* side is marked

by thickening of the arachnoid, and the vessel itself is surrounded by an effusion of yellow lymph. This last-mentioned condition is not present on left side of cerebrum.

Substance of brain generally softened, grey matter of convolutions very pale; ventricles contain 1 oz. of fluid; fornix and septum lucidum of a pulpy almost creamy consistence. On section of the right optic thalamus six or seven hard yellow tubercles are seen, one or two being as large as common peas; they slip from under the knife on section. A pale flaky deposit of lymph covers right optic thalamus. No tubercles found in left hemisphere. Weight of brain 40 ozs.

Lungs free from tubercle; right lung bound firmly to the walls of the chest by old fibrous adhesions. Other organs all healthy.

Remarks.—The above case seems to me to be interesting, owing to the infrequency of tubercular meningitis occurring in the adult without tubercles in the lungs. The well-marked symptoms, which from an early date pointed out the nature of the disease, and the characteristic changes found after death, are, I think, all worthy of note.

Clinical Memoranda. By GEORGE THOMPSON, L.R.C.P. Lond.,
Medical Superintendent of the Bristol Lunatic Asylum.

A Case of Apoplectiform Congestion of the Brain. Death.
Autopsy.

Samuel S. was admitted to the Bristol Asylum in 1861. He was then 41 years of age. He had been an inmate of the Ohio State Asylum, U.S., America, and had been discharged therefrom, in what condition it is difficult to say. He returned to his friends, who lived in Bristol, but he had hardly got settled at home when he displayed most violent and dangerous propensities. With no previous warning, he would exclaim that he was followed and persecuted, and would attack anyone near him. He was, therefore, placed in the Asylum. At first he had (to use a hackneyed expression) lucid intervals, and in these intervals he was usually employed at his trade—that of a shoemaker; but as time went on dementia became progressive, the attacks of violence became more frequent and severe, and latterly he would use his teeth on those about him. It was reported, further, that each attack of the irascible emotion was followed by a slight epileptiform seizure, which symptom was again followed by partial, though very transient insensibility. On the 9th of November, 1871, for no other reason than annoyance at being moved to the dinner table, he became excessively violent, struck the attendant, rushed at the window to break glass, as

he had often done before; seized a chair and flourished it about pretty freely, became convulsed—first in the lower, and then in the upper limbs; the face became twitched and livid; he then gasped once or twice and died.

At the autopsy—made 22 hours after death—the following conditions were found and noted. The body was lean (*i.e.*, void of superabundant fat), but muscular. There were no external marks of injury, beyond a few scratches on the hands, as if caused by broken glass. Sugillation was present in the depending parts to a very marked extent. Rigor mortis was strongly marked. The skull-cap was of a deep purple tint, thick, irregular, unsymmetrical, and deeply eroded by channels for the meningeal vessels. The *dura mater* was strongly adherent in the fronto-parietal region, and everywhere greatly thickened. After stripping this membrane no injury to the bones of the skull could be detected. The surface of the brain presented a dark mass, consisting of engorged vessels and a mixture of the sub-arachnoid fluid with the colouring matter of the blood which had oozed through the vessels. On section, the brain matter was seen to have a deep purple colour, and had a mottled appearance. No extravasated blood was found in any part of the brain, or in the meninges of this organ. Beyond unusual congestion of the parenchymatous organs, nothing unusual was found. The bladder, which had been emptied in the act of dying, was found contracted.

NOTE.—Congestive affections of the brains are by no means uncommon, but it is rarely that death results as an immediate effect of this condition. The case is interesting, as illustrating the effect produced by change of calibre of the vessels, a condition which is more serious, being fully recognised as sufficient to cause many of the phenomena of insanity, either in a direct way or by impairing the nutritive changes in the brain, and so producing a permanent condition of dementia. The recognised persistent spasm of the minute vessels in general paralysis is of itself sufficient to account for the wasting of the brain found in that disease, as also for the attacks of cerebral syncope which often occur, while the opposite condition of extreme dilatation will account for epileptic and epileptiform seizures so common amongst the insane. With the latter, I would classify the case I have related, though in no respect could the patient be deemed an epileptic.

Case of Inoculation of Erysipelatous Virus, by means of a Bite.

William F., an old attendant in this asylum, became disabled, and rendered unfit for further duty in this manner:—Samuel C., suffering from acute delirious melancholy, appa-

rently due to erysipelatous septicæmia, was admitted to this asylum on April 19th, 1873. He resisted violently any kind of interference whatever, and his antipathy to food or drink was his strongest symptom. It was necessary to feed him with the stomach pump. On one of these occasions, W. F., the attendant, whose sole duty it was to hold one hand, allowed the patient to get his thumb between his teeth, and the force with which he held it was so great that the dilator had to be used before the thumb could be got away. It was then found to be severely lacerated; and the danger to which the man was exposed being recognised, the thumb was bathed, and the usual antiseptics applied to it. The injury was, however, followed by diffuse cellulitis of the hand and arm, and much constitutional disturbance. The thumb became gangrenous, and a "line of demarcation" had begun to form, when the sufferer was removed by his friends to a local hospital, *where the thumb was amputated!* The attendant recovered "by the skin of his teeth," but was unfit for work of the like kind. The patient died.

NOTE.—Besides the pathological interest possessed by this case, it forms another instance of the risk to which all who are attendant on the insane are exposed.

Epilepsy and Migraine: a Clinical Note. By RICHARD GREENE, Senior Assistant Medical Officer, Sussex Lunatic Asylum, Haywards Heath.

I believe Dr. Anstie, in one of his interesting papers on Migraine, has drawn a parallel between that disease and epilepsy, or has written that the paroxysms of some forms of sick headache resemble epileptic attacks, and may even develope into true specimens of the latter. This idea was, I confess, new to me and to most of my medical brethren with whom I have had an opportunity of conversing on the subject. Liveing, however, in his recent monograph on megrim makes the same statement.

Now it has been *proved*, and I say this in spite of the late observations of Dr. Binz, that the bromide of potassium very often indeed reduces the number of epileptic seizures (though I have never seen a cure from it); and it has also been proved that the same medicine has a decidedly beneficial effect in certain varieties of migraine. So far, then, actual experiment favours the transmutation theory.

I have elsewhere shown that the Indian hemp has a singu-

larly happy influence in the majority of cases of sick headache, and it was suggested to me by Dr. Williams that I should make a trial of this drug in epilepsy. Arguing from the above the experiment seemed desirable and well worth making.

Accordingly nine epileptics were taken haphazard, the only condition being that no particular medicinal treatment had been employed in their cases for at least four months previously. Each of these patients had half a grain of extract of Indian hemp night and morning, the dose being gradually increased to one grain, and this was persevered in for four months.

The number of fits of each case was accurately noted, and compared with that registered during the previous four months; but in no case was there any diminution in the number or severity of the seizures, and in seven out of the nine there was a positive though slight increase.

It is therefore evident that the Indian hemp possesses no power in mitigating the attacks of epilepsy, at least in the same doses and under the same conditions in which it unquestionably relieves the paroxysms of migraine; and these experiments somewhat negative the old saying that epileptics will improve temporarily under *any* new treatment.

During the time the Indian hemp was being administered five of the patients lost weight, the average loss being one pound and a half; and four gained weight, the average gain being one pound and a quarter.

If it be true that there is a close alliance between epilepsy and migraine, it is not a little strange that victims of the former all but invariably become worse and worse as their years increase, while with the latter it is by no means unusual—in fact, it is a very common occurrence—for the sufferer to “grow out” of it altogether as he passes middle life.

A Case of Chorea. By JAMES MACFAREN, L.R.C.S.E.
Assistant Physician, Royal Edinburgh Asylum.

The points that make this case interesting and worth shortly noticing are not any peculiarities in the symptoms, diagnosis, or treatment, but the following facts:—That the disease came on at an age when it is extremely rare, that its duration has been unusually long, and that there is an

absence, as far as can be ascertained, of any of the usual predisposing or exciting causes.

J. C., at. 46, unmarried, was admitted to the Royal Edinburgh Asylum on January 26th, 1874. He had been apprehended by the police on a charge of being drunk, but as the supposed symptoms of intoxication did not abate after a couple of days in the cells he was certified insane and sent to the asylum. On admission he was not found to have any marked exaltation, depression, excitement, or enfeeblement. His memory was good, he could answer questions well, and was coherent. Had no delusions, as far as could be ascertained. Was very pale, and exhausted looking. Pulse 60, very weak. Temperature 97·6. Pupils dilated. Tongue clean. Appetite voracious. Bowels regular. Reflex action and sensation exaggerated. Had constant choreic twitchings of his limbs, which were never still for an instant. Was always swinging his head about, and jerking it from side to side. When asked to put out his tongue, could not do so for some time, and suddenly protruded and withdrew it. Both sides were equally affected, and there was no appreciable difference between the sensory and motor symptoms of either half of the body. Owing to the incessant movements of the head, lips, and tongue, he spoke with difficulty, and gave the impression of doing so in an imbecile manner; but when care was taken with him the defect was found to be almost entirely physical. The account he gave of himself was that up till six years ago he was a very healthy man, and during his life he never seems to have suffered from any disease serious enough to leave an impression on his mind. Was of sober and industrious habits, and worked steadily at his trade of a sawyer, till about the time mentioned, when he began to suffer from severe frontal headache, and to have occasional involuntary twitchings of his muscles, but where they first began he cannot say. They gradually got so bad as to incapacitate him for his trade, and he had to take to begging to earn his livelihood, and used, he says, to attract crowds about him by the extravagancies of the gestures he had involuntarily indulged in. During the six years he has had the disease there has been no change in the symptoms. He never sustained any injury to his head, and no members of his family were affected with the same disease or with insanity. He never to his knowledge suffered from rheumatic fever, and there is no history of his ever being exposed to fright, or to any of the usual causes of chorea. It is, perhaps, worth mentioning that he states that some years ago an elder brother of his suffered from "brain fever," but he cannot give any particulars as to the symptoms of the seizure. It is just possible that the attack may have been one of mania, and if so it would tend to show the existence of a *neurosis* in the family, which, in his case, has manifested itself in the chorea. His heart has been repeatedly examined, both while he was at rest and after exercise. Its action is weak, but there is no murmur detectable. The mental symptoms

have all along been very slight. There is, perhaps, a trace of enfeeblement, but it is anything but well marked, and the nearest approach he has shown to unsoundness of mind is an occasional attack of extreme irritability on very slight provocation. The treatment has consisted of nourishing diet, a small allowance of stimulants, and 5j dose of bromide of potassium three times a day. For the first few days he did not improve as regards the chorea, though he gained strength. After that the twitchings decreased remarkably, and his temperature, which formerly had a tendency to rise at night, became more steady. He is now gaining flesh and generally doing well.

PART II.—REVIEWS.

A Treatise on Medical Electricity, Theoretical and Practical, and its Use in the Treatment of Paralysis, Neuralgia, and other Diseases. By JULIUS ALTHAUS, M.D. 3rd Edition.

A Handbook of Medical Electricity. By HERBERT TIBBITS, M.D.

Lectures on the Clinical Uses of Electricity. By J. RUSSELL REYNOLDS, M.D., F.R.S. 2nd Edition.

“There are few remedies employed in the treatment of disease on the value of which the professional mind is less settled than on that of galvanism.” Such is the opening statement in the preface to the first edition of Dr. Althaus’ work, a book well deserving the attention of all medical men, both for the fairness of its observations and the extent of its information. In fact, there is no other in the English language so complete and so useful on this subject. The present edition is a vast improvement on the last; not only is it much increased in size, but a great deal has been left out, and its place supplied by other and more useful information. We especially commend it to the attention of alienists as containing much that is valuable in the treatment of mental disease. For, if the above statement may be applied to the profession generally, it may with increased force be applied to alienists especially.

That a remedy of such value has not been hitherto so much studied as it deserves, is a matter for deep regret, and particularly as this neglect has arisen from a deep-seated prejudice. This prejudice, in its turn, has arisen from ignorance of the real nature of the remedy, from the want of success

that has so frequently attended its use, and from occasional harm that has been done by it. There is another reason which is less excusable, and this, we fear is laziness. When we meet with people who say they have employed electricity and found it wanting, it generally happens that these same individuals have only a misty idea as to the difference between the various instruments, and probably have used that which is cheapest, and "produces the most effect." Much less have they any notion of the distinction between the various forms of electricity that may be generated. When we remember that there are four kinds, and that these have each peculiar properties, and when we find observers talking about them under the generic term electricity, as if they were all alike in their effects, we cannot be surprised that failures should occur.* Therefore such a work as this requires careful study, especially that part relating to physiological effects. "It is true that even by a careless employment of galvanism, a few accidental successes have been obtained; but, in ninety-nine cases out of a hundred, empirical galvanists, being unacquainted with the physiological effects of electricity, have been disappointed, and have brought the remedy into undeserved contempt. * * * Hence, electricity can only be expected to be of service in the treatment of disease, if we are guided in its use by an exact knowledge of the physiological effects which it will invariably produce." But this "exact knowledge" has not yet been arrived at; therefore physicians must employ the remedy guided by such knowledge as they at present have of its effects. We do not understand the physiological action of many remedies we are daily using, but still we do not hesitate to drench our patients with drugs as experimental treatment. The special actions of medicines taken into the system, and acted on therein by various secretions, must necessarily remain unknown and uncertain. Galvanism can be applied with the utmost nicety to the system generally, or to particular parts, and, with ordinary care, produces no unpleasant effect, nor does any harm.

Premising therefore that the chief objections to the use of electricity arise from ignorance of its nature, Dr. Althaus gives a minute description of its history and its various forms. Unfortunately, in this part, he is at times rather obscure, and though professing to give an elementary descrip-

* See also remarks by Dr. Beard, "Journal Mental Science," Oct., 1873, p. 356.

tion, it is rather difficult for anyone, not previously well acquainted with the subject, to understand him. Much also might have been omitted in a medical work; still, on the whole, even this part is useful for reference.

Nature of Electricity.

Of the real nature of electricity no one as yet professes to speak positively; it is assumed, for convenience, to be a fluid, which is composed of two opposed fluids termed negative and positive. This fluid, or subtle imponderable matter, is contained in every substance. When the two fluids of which it is composed are combined they neutralise one another, and the body is then in its natural or neutral state. Friction and various other means, notably chemical decomposition, separate these two fluids, either of which may be collected and used alone. But one can never be produced without the other. This is the *theory of Symmer*, and is purely hypothetical.

Quantity and Intensity.—Induction.

Most electrical phenomena are dependent on the *quantity* and *intensity* of the electric fluid, and these depend on the source from which it is obtained. As it is very important to fully understand the distinction between these terms, various illustrations are given; but none is so lucid as Prof. Tyn-dall's. "He says that a cubic inch of air, if compressed with sufficient power, may rupture a rigid envelope; while a cubic yard of air, if not so compressed, may exert only a feeble pressure upon the surfaces which bound it. Now frictional electricity is in a condition analogous to the compressed air; its density or tension is very considerable. Voltaic electricity, on the other hand, resembles the uncompressed air; its quantity exceeds enormously that of the machine; but it falls much below it in intensity." This illustration serves also to explain the distinction between a *constant* and an *induced* current; the former acts slowly with less apparent effect, and is distributed over a larger surface; while the latter acts instantaneously, produces striking effects, and is concentrated in its action. The continuous current is, however, the most powerful, for Faraday has estimated that the quantity of electricity in action during a severe thunderstorm would correspond to the quantity of electricity set free by the chemical action of one grain of water on four grains of zinc.

The induced currents are "instantaneous currents deve-

loped in metallic conductors under the influence of metallic conductors traversed by electric currents, or by the influence of powerful magnets, or even by the magnetic action of the earth" (Ganot's "Physics"). It is that form produced by small apparatus; its effects seem to be powerful, but they are not really so, only more painful. It is inconstant, for the direction of the current is continually being reversed, and though useful in many forms of paralysis, and as "moral treatment," is unsuited for the treatment of brain disease.

The same remark also applies to electrical shocks from a Leyden jar, for as Dr. Russell Reynolds observes, "short of being hanged, I do not imagine that anything could be more unpleasant;" yet in certain neuroses they do good.

The Continuous Current.

The continuous current is the most certain in its effects and most easily manageable, and is that which should always be used in mental disease. It is obtained from various kinds of batteries; the most serviceable, however, are the Becker-Muirhead, Foveaux's, and Stöhrer's. The necessary characteristics of a good battery are:—1. That it should furnish a large quantity of electricity. 2. The current should not be subjected to any considerable variations within a certain time (say one or two months). 3. The apparatus should be handy, and fit for use at any moment. 4. The number of cells should be large (60 to 100).

Electrodes, consisting of sponge or charcoal, fitted in hollow brass sockets, attached by insulated wires to the battery, are used to apply the electricity.

Electrometers.

It would be of great advantage if we possessed some certain means of estimating the actual amount of electricity administered; but the usual galvanometers are uncertain or too delicate for general use. In fact what are usually called galvanometers are really galvanoscopes. The only reliable one for powerful currents is the *tangent compass*; it is constructed by the makers of the Becker-Muiread batteries. But after all the best galvanometer is the skin of the operator himself; for low power the electrodes being applied to the cheeks, and for high powers to the hands. A rough way also is to observe the rapidity with which water is decomposed.

Even with a most accurate galvanometer no exact estimation of the amount of electricity received by the patient can

be given. We can only tell the quantity that leaves the battery. This is due to the fact that the skin varies in its powers of conductivity, and also because the receptive powers of individuals vary. "Young people, for instance, do not conduct so well as the aged; the callous extremities of working men have more resistance than the delicate skin of persons of rank, and the resistance of the right hand is greater than that of the left." There are also certain differences in the resistances of the same individual at various times. Probably these variations are due to the moisture or dryness of the skin.

Animal Electricity.

Dr. Althaus has devoted over thirty pages to animal electricity, and has fully described the various electrical phenomena in the Electric Ray, Gymnotus, Malapterurus, Frog, and Man. These are interesting, but possess no attraction to those treating mental disease, beyond demonstrating the fact that there is a fluid (to use the hypothetical term) analogous or identical with electricity circulating through, or resident in, nearly all the structures of the body. Thus we may demonstrate a nervous, muscular, glandular, and cutaneous current. These currents are modified, altered, or destroyed by a galvanic current. And we may suggest the question whether it is not through this electrical state of the various organs that the peculiar phenomenon called "sympathy," so prominent a factor in the production of insanity, is exerted.

Mode of Application.

There are various modes of applying the continuous current, differing of course according to the particular part it is wished to operate on, the purpose of the application, and the form of electricity to be administered.

The electrodes may be applied close to the seat of disease, or at some distance; needles attached to either poles may be thrust into tumours, etc.

"It may be laid down as a general principle that a feeble current used for a short time produces the greatest therapeutical effect. A very powerful current almost always does harm instead of good, and more especially so when it is applied for a considerable length of time." It is generally understood that the flow of the so-called fluid is from the positive to the negative pole. The best way to test which is which,

if there is any uncertainty, is to put bright copper wires connected with each in water; that which is oxidised is the positive, that where there is no result is the negative.

It is possible not only to apply both negative and positive currents at the same time, of course in opposite directions, but also to give either one or the other alone. In this latter case we connect the pole we do not wish to use with the earth; fastening it to a gaspipe answers the purpose.

Many observers have found apparently little difference between the various forms of electricity, or in whatever direction the current runs. Still, though the difference in these particulars may seem to be slight, it will always be well to experiment with one particular form and one direction of the current, altering these if no good results, and noting carefully the instances where good is done by any particular form or direction of the current.

Effect on the Brain.

Many argue that the electric fluid cannot possibly affect internal organs, as it could not penetrate through skin, muscles, &c. But Ranke has met these objections by positive experiments, and "we may now take it for granted that when the current has once overcome the resistance of the cuticle and the bones, it will spread almost equally through all the organs which are interposed between the two electrodes, the greatest effect being always produced near the electrodes." Therefore we need not fear of being unable to influence the most deep-seated organs, even so enclosed an organ as the brain. In fact, Professor Erb, of Heidelberg, has shown "that the obstacles encountered by the galvanic current on its way to the brain are not so great as has generally been supposed." And positive experiments both by Erb, Burckhardt of Basle, and others, have clearly proved that the brain is really affected by a current applied without the cranium. "Furthermore, sensations are caused by an application of the current to the head, which can only be owing to a direct action of it on the cerebral matter, viz., dizziness, giddiness, sleepiness, sickness, faintness, vomiting, and even convulsions. The latter phenomena are only noticed if the current be of considerable power; but giddiness and faintness are often felt even when a gentle current is used." Dr. Althaus condenses the labours of nearly all who have experimented on the effect of stimulation of the brain, whether by electricity or otherwise, from the time of Haller and Zinn, in 1756, to Professor

Ferrier, in 1873, and this part is deserving of most careful study.

In order to act on the brain by electricity the electrodes may be applied in various positions, not necessarily close to that organ, for we may remember that the continuous current is very diffusible. "If it be intended to send the current through both hemispheres, three different modes of application may be used: *a*, one electrode is directed to the forehead and another to the occiput; *b*, one to the left and one to the right temple; and, *c*, one to the left and the other to the right mastoid process. If, however, only one hemisphere is to be galvanised, as in certain cases of hemiplegia, it is best to put one electrode over the eyebrow and the other to or near the mastoid process of the same side. With regard to the direction of the current, Benedict has recommended to place the anode to the cervical spine, and the cathode to the right or left side of the forehead. I do not think that this direction should invariably be followed, since I have found that it had better be determined by the sensation experienced by the patient. If, for instance, the patient should complain of a feeling of fulness, pain, or weight and pressure on the forehead, it is advisable to apply the anode there; but if such sensations are experienced at the occiput, the cathode in front is preferable. Where the patient does not complain of the head, that direction should be chosen which appears to do most good." Still, however, it is very possible that as much permanent good will result from having only one electrode at or near the head, and the other at some distant part. Dr. Arndt has affirmed that he has seen more good result from having one electrode to the nape of the neck, and the other at another part of the body. He thinks the brain is more affected thus, and certainly the base of the brain is acted on in this manner.

It is probable that the fluid traverses the blood vessels, and enters the brain by them, and it may be supposed that the electrodes being applied near those vessels which supply the brain would produce the required effects. "The large vein connecting the sinus transversus with the posterior auricular veins, and likewise the posterior meningeal artery proceed through the mastoid foramen into the skull. Again in the occipital region, there is a connexion between the sinus transversus and the vena cervicalis profunda, by means of a vein coursing through the posterior condyloid foramen." But though Dr. Althaus acknowledges the possibility of electricity entering the brain by the blood vessels, he seems to

think that "the reflex function of the fifth pair of cerebral nerves is likewise concerned in guiding the current to the brain."

Galvanism of the Sympathetic.

It is probable, however, that many cases of insanity may be due, not to disease of the brain itself, but to some affection of the sympathetic. By-the-bye, how little is this important part of the nervous system studied in so called mental disease; perhaps if it received more attention we should be able to understand how it is that disease of other organs affects the brain, or affects those phenomena we attribute to brain function.

Now it seems possible to act on this special part of the nervous system by electricity, in spite of Dr. Clifford Allbutt's remark that it is "the very midsummer madness of reasoning" to believe that the sympathetic can be reached by galvanism. But his objections, as well as those of Dr. Buzzard, are based on erroneous inferences, for they both seem to fail to understand the difference between a powerful faradaic and a feeble galvanic current. Dr. Bernard and Brown-Séquard express the same doubt, but then they also seem to have only used induced currents of high tension, and not the continuous current.

In spite, therefore, of those who deny the possibility of influencing the sympathetic, Dr. Althaus gives us directions how to do so, none of which, however, would influence the sympathetic alone, "for it is impossible to localise the current in this nerve in the living man." Herein lies the cause of the differences between observers on this point, one side supposing the other side to say they can influence it alone, and the other believing their opponents to deny the possibility of influencing it at all. Dr. Clifford Allbutt, who is credited with the above remark about "Midsummer madness," says, in the West Riding Reports, for 1872, in an article on "The Electric Treatment of the Insane" (of which, by-the-bye, we see no notice in Dr. Althaus' work), "I do not deny that the sympathetic nerve may be generally involved in the influence." There are three ways by which galvanism may be applied to the sympathetic. In each case one electrode is applied to the auriculo-maxillary fossa, and the other either—*a*, to the transverse process of the sixth or seventh cervical vertebra on the opposite side of the body; *b*, to the manubrium sterni, at the inner edge of the sterno-mastoid muscle; or, *c*, inside the

cavity of the mouth, opposite the articulation of the lower jaw. This latter mode has been but little studied.

The effects produced are—1. A feeling of sleepiness and drowsiness, continuing for some time after the current has been broken. In patients suffering from cerebral disease this symptom is sometimes very marked. If this effect can be depended on, we might suppose that this form of electrification would be indicated in acute mania, but we have not met with any record of cases being so treated.

2. Certain changes in the pupil, sometimes dilatation, sometimes contraction. Dr. Allbutt, however, says “dilatation of the pupils follows sharp electrification of any sensitive part of the body, from the crown of the head to the sole of the foot;” but then he speaks of “sharp electrification,” evidently the induced, not the continuous current.

3. An effect on the heart’s action, as shown both by the number of beats, and also by the sphygmographic curves.

4. A general feeling of warmth throughout the system, sometimes accompanied by perspiration.*

Prof. Cyon, of St. Petersburg, remarks on this subject—“If we excite this nerve alone, we may cause a contraction in the small vessels of the head, and augmentation of pressure in the large vessels. This modification of the blood vessels may be useful in so far as it may promote the absorption of effused liquids, and prevent further effusion. If we only use the polarising (electrotonic) effects of the constant current, we may increase or diminish the tonicity of the cerebral blood vessels, and thus produce a modification of the pressure of blood in the brain.”

M. Cyon seems to doubt the efficacy of directing a current through the brain, simply from our inability to diagnose the actual seat of disease; but Dr. Althaus points out that his arguments are more those of a physiologist than a physician. We believe, however, that Dr. Althaus has gone rather too far, when he says that “a physician who has clinically and pathologically studied neurotic affections in a tolerably large number of cases, will, as a rule, not find any insurmountable difficulties in localising cerebral affections with a great degree of accuracy.” And we are rather inclined to agree with M. Cyon; we do not always act on diseased organs in other forms of medical treatment, but frequently find it judicious to produce an action on other organs, and it might reasonably be

* See also “*Journal of Mental Science*,” vol. xviii, p. 140.

supposed that we should do the same in the electric treatment. In other words, we may sometimes apply electricity so as to produce a direct, and sometimes an indirect, effect on the brain.

Cautions to be Observed.

In applying electricity, it is generally advisable to continue it on, say, alternate days, for a month or six weeks; then, if there is no improvement, it may be discontinued for a time, to be renewed after one or two months. It frequently happens that a second course will do good, even when the first has failed to produce any appreciable effects. If the patient gets worse, instead of better, it is of course necessary to discontinue the treatment altogether, unless we can trace the relapse to some other cause. When the patient acquires a persistent metallic taste, lasting for a day or two, when there is sleeplessness, restlessness, noises in the ears, vertigo, and a general sense of lassitude, then it is a sign that the system has become what is called saturated, or over-polarised, and the galvanism has ceased to be useful. Thus Dr. Althaus has remarked; but perhaps if the current has been allowed always to proceed in one direction, a reversion of it will do good, and may prevent this over-polarisation.

Results of Electric Treatment.

That electricity has been of service in many cases of brain disorder is unquestionable, and more will be met with as the remedy becomes understood. When galvanism first came up, and it was regarded as a panacea for all the ills that flesh is heir to, we may be sure that cases of mental disease did not escape this treatment. They were, however, very few, and chiefly cases of hysteria, catalepsy, epilepsy, and those associated with paralysis. Nor is it surprising that mental disease should be thus neglected, for it is only quite recently we have come to look upon disease of the brain as a physical ailment, or due to physical causes.

Duchenne, in 1850, was about the first earnest worker with this agent in insanity, and his labours were capped by Remak's researches, though Teilleux and Anzony had certainly done something in this way before then, and were still continuing to employ electricity.

Dr. Arndt, of Griefswald, believes electricity is an invaluable remedy in many forms of insanity. He regards faradism, or the induced current, as a powerful stimulant upon the

diseased nervous system, especially useful in simple atony of the brain, depression or paralysis of function. He also resorts to faradisation of the phrenic nerves to accelerate respiration, and presumes that it is thus useful in decarbonising the blood, improving circulation, and removing or preventing that passive hyperæmia which is so frequently found in the blood vessels of the pia mater. He believes it is analogous to cold baths, the douche, etc. He also uses it to act on the skin.

Arndt thinks that coarse structural alterations of the brain matter are absent in by far the largest majority of cases, and where they are discovered they are more the consequences than the causes of disordered function. He considers the constant current is likely to become, in course of time, the most important remedy at the disposal of the alienist physician. For further remarks on Dr. Arndt's work we must refer the reader to a very complete review in this Journal for October, 1871 (vol. xviii., p. 423 et seq.).

At the Sussex County Asylum the galvanic battery has had a fair trial, and the results have been most satisfactory. It is a pity, however, that though Dr. Althaus mentions that Dr. Williams has recorded the good effects of galvanisation in two cases, he did not see the article published in this Journal for April, 1873 (vol. xix., p. 79), and also the Appendix to the Sussex Asylum Reports. He would then have noticed that there were over fifteen cases treated, and that something is said of the mode of application, time of séance, direction of current, result, etc.

In continuation of the subject as to whether insanity be not unlikely reflected from other diseased organs, we may quote M. Anzony's remarks. "He looks upon certain peripheral phenomena not as complications, but as symptoms, of the cerebral disease, and considers that when they have once made their appearance they are of great influence upon the further progress of the case. An organ which, according to him, plays a prominent part in these conditions, is the skin, which serves to maintain animal heat at a proper standard, keeps the individual in contact with the world, and is of importance for perspiration and absorption. By its nerves it is intimately connected with the brain, and impressions made on the skin are transmitted to, and perceived in the cranial centre. In lunatics the action of the skin is generally impaired, and often nearly lost. This condition should be combated by the physician, who may thus, in an indirect manner,

act on the brain itself. Magneto-faradism is, according to Anzony, one of the best means at our disposal for this purpose."

In cerebral paralysis due to hemorrhage or embolism, galvanism is useful. It should be applied from fourteen to eighteen days since the occurrence of the attack. If a longer time is allowed to elapse, the prospects of ultimate recovery are diminished, and an earlier application is inadvisable on account of the danger of cerebral fever; some begin, however, on the seventh or eighth day. The anode should be placed on the forehead of the side of the lesion, and the cathode to the nape of the neck. Commence with a feeble power of one or two cells up to five or six for three minutes. The superior cervical ganglion is galvanised with a somewhat more powerful current, viz., from ten to fifteen cells for about five minutes.

There is much more in Dr. Althaus' book of great interest; but we must refer our readers to the work itself. It is replete with diagrams, engravings, illustrative cases, &c. Very remarkable instances are given of the good effects of galvanism, not the least of which is the removal of tumours by electrolysis.

Of Dr. Tibbits and Dr. Russell Reynolds' two little books, we cannot say much; they are very useful to the general practitioner, but do not contain much in reference to the treatment of mental disease.

Dr. Tibbits has only a short paragraph condensing the observations of Benedikt, and he does not draw much distinction between the employment of the continuous and the induced current. He, however, makes the following sensible remarks:—"There is too much belief and too much unbelief in the therapeutic power of electricity. The men who estimate it fairly are quite the minority. It is generally either much undervalued, or else believed to be a sort of modern elixir vitæ, capable of curing a hopeless hemiplegia from destruction of brain tissue or a paralysis agitans from senile degeneration. Although it will do neither of these impossibilities, yet, considered as a remedy, it is of great value in a wide margin of diseases. It will either stimulate or soothe both nerve and muscle, according to its variety and mode of application; it will frequently restore voluntary movement; it will relieve pain, heighten temperature, recall sensation, coagulate the blood, and dissolve or slowly cause the absorption of tumours."

In conclusion, we can but echo the wish expressed in a former review on electricity in insanity in this Journal:—
 “The subject is worthy of thorough investigation, and may become of special importance in the treatment of insanity
 * * * and we hope that before long we may have to present the results of such investigations to the readers of this Journal.”*
 A. H. N.

A Manual of Psychological Medicine, containing the Lunacy Laws, the Nosology, the Ætiology, Statistics, Description, Diagnosis, Pathology, and Treatment of Insanity. By JOHN CHARLES BUCKNILL, M.D., F.R.S., and by DANIEL HACK TUKE, M.D. 3rd Edition. London: J. & A. Churchill, 1874, pp. 806.

This edition of a valuable text-book has been thoroughly revised, greatly enlarged, and improved, much of it having been re-written. It has now grown indeed to as large a bulk as is compatible with its convenient use. Observation and research in the field of mental disease having been very active of late years, and the knowledge thereof being in an expanding and a more or less transitional state, it was unavoidable that the book should expand, in order to give a faithful account of the present state of opinion, inquiry, and positive knowledge. For, as the authors justly say in their preface, “the history of a text-book must follow that of its science. While this is expanding it must enlarge, when this is consolidating it may contract.” One thing it yet, however, lacks to render it complete; namely, a chapter on the medico-legal relations of insanity. It is true that a great deal of information bearing upon these relations—perhaps all that is necessary—will be found scattered in the different chapters; but we think it would have been an advantage, especially to the general practitioner, to have had in a special chapter an application of it to the important medico-legal questions that may arise and confound him. For it is certain a man may have a great deal of general information upon a subject without having it available in an exact and practical form, so as to enable him to answer the questions that may be put to him in a court of justice, unless he has familiarised his mind with the kind of questions that will be put, and the kind of answers which the state of knowledge warrants him in giving. The omission is

* “Journal of Mental Science,” vol. xvii., p. 271.

to be regretted the more in this case, inasmuch as no one could be better qualified than Dr. Bucknill to fill it up.

The book is so well known to our readers that it is not necessary for us to give a detailed account of its contents. The authorship is divided, as in former editions; the first half, comprising the chapters on the Lunacy Laws, Classification, *Ætiology*, Statistics, and Description being written by Dr. Hack Tuke; and the latter half, comprising the chapters on Diagnosis, Pathology, and Treatment, by Dr. Bucknill, who has availed himself of the assistance of Dr. Batty Tuke in the histological portion of the chapter on Pathology. Suffice it on this occasion to notice some of the most important additions by which this edition is distinguished from its predecessors.

On referring to the chapter on Classification, we find that Dr. Tuke is not prepared to abandon a psychological system of classification as useless, and to agree with those who believe that Dr. Skae has settled the question of what is the right system. "Is it or is it not," he asks, "a fact that Dr. Skae, without being told the prior history of a patient, can distinguish by the symptoms alone a case of traumatic mania from one of phthisical mania? A case of syphilitic from a case of metastatic mania?" His own experience would lead him to question whether each of Dr. Skae's groups, which it must be confessed have not been constant, has its own special psychological character, and to believe that very different mental symptoms frequently result from the same cause. Then, again, he asks why should the terms *sthenic* and *asthenic* be restricted to Idiopathic insanity, when some of the cases belonging to other groups are most distinctly *asthenic*? Or what sort of notion, if any definite notion at all, of the mental symptoms of a case is conveyed by the description of it simply as a case of *asthenic* insanity? It might be objected again to Dr. Skae's system that it throws into the shade or even ignores psychical causes of insanity—not quite, since he distinctly attributed all cases of idiopathic insanity to moral causes—and that it would be quite possible, by tracing the causes of the attacks of the patients in any large asylum, to construct a psycho-*ætiological*, as well as a somato-*ætiological* nosology. "In fact, 'Post-connubial mania' probably as frequently owns an emotional as a physical cause. We might speak of a 'Post-fright,' and a 'Post-grief' mania, or of 'Post-study insanity,' and so on through the several emotions and the intellectual faculties."

Once more, it is difficult to see why physical diseases as causes should be restricted to those laid down in Dr. Skae's classification. "Why not have as many as have ever been known to cause insanity?" While making these criticisms, Dr. Tuke fully admits that they are not valid reasons for not attempting to pursue Dr. Skae's path of inquiry, and so to connect as much as possible the mental disturbance with the *fons et origo mali* of which it is but a symptom.

Perhaps in some of these strictures Dr. Tuke has hardly done justice to Dr. Skae's aim, which was not to base his classification on ætiology, but on the entire natural history of the disease, using the supposed cause only as the most convenient designation of the group or family. If he will refer to the "Journal of Mental Science" for January, 1872, p. 615, he will see that Dr. Skae expressly repudiates the opinion that his classification rests upon an ætiological basis. "This is far from being the case," he says; "it is based, as fairly shown by Dr. Maudsley, upon an attempt to group the various forms of insanity into '*natural families*,' as we describe scarlatina, typhus or typhoid fever, measles, or cholera, the natural history of all of which we know. Their early symptoms, the course and termination of them, and, it may be, but that is immaterial to their nosology, their supposed cause. So in my classification, the name may suggest that the form is designated from the *cause* alone, but it is not so; the cause may be made use of as a convenient means of designation, but no more. Many of the forms of insanity, such as general paralysis, &c., have many assigned causes. If a physical or pathological cause can be found, of course I prefer it as a name for the form of insanity, just as I would designate the disease causing cough, rusty sputa, and dullness on percussion, '*inflammation of the lungs*,' or '*pneumonia*.'"

The question, of course, is whether there are really so many distinctly defined groups as Dr. Skae imagined. And it is a question which it has not been possible hitherto to answer unequivocally, because the groups have, with three or four exceptions, been only indicated and their outlines sketched; the characteristic details of the pictures have not been filled in. We had hoped to have found that Dr. Skae had done this work in his Morisonian Lectures, but we have been disappointed. Notwithstanding his objections to the classification as a complete system, Dr. Tuke is so far sensible of a value in it that he has introduced into this edition of the Manual a new chapter containing a sketch of most of the different

groups of Dr. Skae. One advantage of the chapter is that it has enabled him to supply what was a singular omission in former editions—namely, a description of the natural history of general paralysis of the insane. Here we note a deficiency. When speaking of the causes of general paralysis, though he mentions intemperance as a probable cause, he says nothing whatever about sexual excesses. Now we entertain a decided opinion, in which we are far from standing alone, that sexual excess is the most frequent cause of the disease; that more than half the cases own it as the cause; that, in fact, *the* cause might be said to be sexual excess *plus* a certain temperament. We must, too, express a similar regret in regard to this chapter to that which we have expressed with regard to Dr. Skae—that many of the groups or forms of insanity are merely sketched in the vaguest outlines, which must render it difficult for a reader who is not familiar with insanity to gain anything like an adequate conception of them. They are so void of substance as almost to provoke the Macbeth-like exclamation “Unreal mockery, hence.” But that, perhaps, was an unavoidable result. To have done once for all with strictures, let us say that while nothing can exceed the conscientious industry with which Dr. Tuke has collected information from different quarters, we note some lack of digestion of material in the first half of the volume; perhaps a future edition might be amended, and at the same time lessened in bulk, so as to make room for the desired medico-legal chapter, by a more complete process of digestion and assimilation. It may be taken as gratifying evidence of the value of the scientific work which has been recorded in this Journal that Dr. Tuke has found occasion to refer frequently for information to the papers that have from time to time been published in it.

Before passing from the first part of the work, which, by itself, did space permit and were time available, would readily furnish material for a long review, let us add that it contains several interesting illustrations of peculiarities in the handwriting of the insane, and a series of sphygmographic tracings of the pulse in various forms of insanity. Dr. Tuke has also printed the form of case-book drawn up and recommended by a committee of the Medico-Psychological Association. Altogether he has done his best to make his contribution to the volume a faithful representation of the present state of our knowledge of the subjects which have fallen to his share.

The second half of the volume, by Dr. Bucknill, has also been thoroughly revised, a great part of it having been rewritten, and has been brought up to the level of the knowledge of the day. The excellent chapter on Diagnosis is very much as it was in former editions; it is no doubt well known to most of our readers. It contains, however, we are happy to see, an effective reply to the ignorant and reckless criticisms which the late Lord Westbury made upon medical evidence in cases of insanity during the debate on the Lunacy Regulation Bill in the House of Lords. In order to raise a laugh among the members of the assembly, he quoted from this chapter on diagnosis the statement that in "chronic mania the hair becomes harsh and bristling," and asked whether everyone with harsh and bristling hair was to be considered a lunatic. Dr. Bucknill has no difficulty in pointing out—first, the unwarrantable use which Lord Westbury made of the words, by concealing the fact that these slight characteristics were given only as parts of the medical history of the case, and by implying that they were the sort of facts which medical men adduced as proofs of insanity; and, secondly, the scientific importance of facts which might seem trivial to a non-medical observer. With regard to the harsh and bristling hair of the insane he quotes Mr. Darwin, who has—perhaps with somewhat too confident a trust—dwelt upon the matter in his book on the "Expression of the Emotions." We doubt not, however, that if Lord Westbury were still living, and were desirous of raising a laugh on his side, he would quote a portion of Mr. Darwin's observations concerning the point of the ear in some persons, and would ask triumphantly what should be thought of a writer who adduced such evidence to prove that man was an ape. Dr. Bucknill is careful to explain, in a note to the preface, that his criticisms in reply "were written and printed before the lamented decease of that great and learned lawyer," anxious probably not to be thought to have warred against the dead. For our part we hardly see why criticism of false doctrine should be spared because the propounder of it is dead, whether the grass has grown over his grave or not; in that respect we lack the tender grace of sentiment, holding that *nil nisi verum* is a more beneficial, as it is a more honest, maxim than *nil nisi bonum*.

The concluding remarks of the chapter, in which Dr. Bucknill refers to two cases which excited a great deal of feeling at the time of their occurrence, will be interesting

even to those, if there be any such, who may not think them convincing :—

The whole question of the relationship between crime and insanity is too large and complicated to be entered on in this place. Perhaps no broad principles of general application can be laid down, nor the question ever be satisfactorily argued, except on a concrete case. In such cases the thorough and honest examination of the criminal will decide the question of his state of mind at the time of the examination, although it will necessarily leave the difficulty of determining his state of mind at the date of the crime. A man may be of unsound mind when he commits a murder, and quite sane when he is examined some weeks afterwards, or the contrary may happen. It is not often that a sane man commits a great crime on principles which he avows and adheres to, and yet which sound so strange to the ears of law-abiding men that they suggest the idea of lunacy. Such was the case, however, in the instances of Victor Townley and Constance Kent, who were both sane criminals. Townley destroyed himself in prison, and a sapient coroner's jury brought in a verdict of insanity because it was impossible to them to conceive that any sane man could be guilty of murder and of self-murder. In conjunction with the late Sir Charles Hood and the late Dr. Meyer we examined this criminal in Bethlem, and we were all thoroughly convinced that he was of sound mind. At this examination we asked him whether he thought he would be justified in taking away his own life if he were tired of it, and he replied, "I think that when any man is unhappy and uncomfortable in this life and sees no prospect of change for the better, he is quite right to put an end to it."* On this declaration, and on study of his character, we expressed to our colleagues our full expectation that he would commit suicide, and he did. This last act tended to make more clear the determined character and the godless principles of the man who had committed a deliberate and brutal murder; but it no more proved that he was insane than the calculated suicide of an ancient Roman or the happy dispatch of a Japanese would prove the same of either of them.

The chapter on Pathology has been much enlarged in this edition; it now occupies 156 pages, and is the completest account of the pathology of insanity which we have in this country. As we have already mentioned, the histological portion has been written by Dr. Batty Tuke, and constitutes an important addition to the matter which appeared in the

* Townley might have aptly expressed his feelings to his visitors in the words of Macbeth, had he known them :—

"Better be with the dead,
Whom we, to gain our peace, have sent to peace,
Than on the torture of the mind to lie
In restless ecstasy."

last edition. Dr. Bucknill has not found it necessary to sacrifice his elaborate disquisition on the principles of pathology or the records of the morbid appearances which he had observed with the naked eye. He is far from considering that microscopical investigations have rendered valueless such observations as have been made with the naked eye, or that they ever will render such observations superfluous, as the following remarks show :—

We trust that this original contribution from Dr. Batty Tuke will bring the pathology of our subject up to the present date of correct knowledge ; but, because histological investigation has advanced, we shall not omit the due consideration of naked-eye appearances. These, of late, it has been the fashion to depreciate with as much philosophy as a child shows when he breaks his old toy because he has a new one ; and we entirely disagree with Dr. Blandford, when he states that all the records of former autopsies made with the naked eye are so much waste paper. In our opinion naked-eye appearances must ever be the common foundations of pathological knowledge, and the triumph of cerebral histology will occur when it has taught us to recognise with the naked eye what condition of the tissues we should find with the microscope. As well might the naked-eye appearances of the lungs, the stomach, or the kidney be discredited because the microscope has taught us to understand them. Moreover, there are naked-eye appearances which stand by themselves as most important facts, to which it is possible that histological research will hereafter add greater value. It may or may not do so ; but in the meanwhile they have an intrinsic value, which it would be mere pedantry to ignore. Take, for instance, the naked-eye appearance of abscess of the central white matter without affection of the mind, and contrast it with the naked-eye appearances of the meninges and cerebral cortex, which are never seen without mental disturbance. Are the records of such facts mere waste paper ? Histology has taught us and will teach us much, but we venture to think that even in the brain, and certainly in the body at large, naked-eye appearances have taught us more. Let us worship the rising sun with rational devotion and not act like “ the idiot who takes his bauble for a god.”

We cannot pretend to give an analysis of the contents of this chapter, which must be studied by those who are interested in the pathology of mental disorders. Indeed, we shall make but one short extract, because it bears upon a great social question of the day. Speaking of the condition of the reproductive organs in insanity, Dr. Bucknill says :—

The reproductive organs are frequently the seat of disease. Among male idiots and imbeciles, instances of deficient or excessive

development of these organs are common ; and the female population of every large asylum contains several instances of that masculine development of frame and constitution which indicates an abnormal function of the sexual organs. There can be little doubt, from the number of such instances, that the androgynous character is often accompanied by mental imbecility. Is it not always so to some extent, and is not this a cogent reason why the women who have invaded the sphere of man's work and duty have, as a rule, proved such miserable failures? The women of highest mental capacity have generally been remarkable for the strong development of the characteristics of their own sex.

We know not what women of high mental capacity Dr. Bucknill has before his mind's eye when he makes this statement, unless he be thinking of the distinguished lady of antiquity who instructed Pericles in eloquence and to whom even Socrates resorted avowedly to steal wisdom ; but whatever may be thought to be the proper characteristics of the sex, it is remarkable that the most famous of courtezans should have been the most famous among women in intellectual power and accomplishments. What does Dr. Bucknill say to Aspasia and her mental capacity? While we hold to the opinion that some of the advocates of the woman's right movement are mistaken in the aims which they pursue, and in the methods by which they would pursue them, we should hesitate to endorse entirely the strong opinion which Dr. Bucknill plainly entertains. Having given it such decisive expression in a scientific treatise, is it not incumbent upon him to take early occasion to give a fuller exposition of his views, and to set forth the facts and arguments upon which they are based? The importance of the subject at the present day can hardly be exaggerated, and experienced physicians are best qualified to discuss it thoroughly.

The last chapter, which deals with the treatment of insanity, contains much new matter, and ought to receive earnest attention. In it are embodied the results of Dr. Bucknill's experience in his official capacity, and we are happy to see, on comparing the contents of this chapter with those of the corresponding chapter in the last edition, that the string of his tongue has been loosed and that he has spoken plainly. It was our first intention to have given a full account of the opinions expressed, but having regard to the many important matters treated of and to the weighty criticisms and judgments which the author has enunciated, we have thought it best to reserve for another and special oc-

casion a detailed review of it. Meanwhile the following remarks, with which we sympathise, will serve as example of the plain speech used, and may be of interest to those whom they concern. If it be true, as alleged, that there are "attendants upon lunatics living in domestic privacy who have paid hundreds of pounds out of their wages to asylum proprietors who have never seen the patients at all, and have not seen the attendants for years, nor heard from them, except to receive the annual tribute," we are certainly of opinion that the attendants who have paid the unjust tribute have shown a far higher sense of honour than the proprietors who have had the moral courage to receive it; and we marvel somewhat that the steadfast adherence on the part of the attendants to such an extraordinary contract has not availed to release them from their obligations. Here is what Dr. Bucknill says:—

Another essential point in the choice of an asylum is that the attendants should not only be skilful and trustworthy, and under the constant direction and control of the physician, but that they should be in continuous charge of the inmates. We cannot imagine a system more immediately tending to the disadvantage of patients under treatment for mental disease, than that which prevails in some private asylums of maintaining a public traffic in attendants. Under this system a patient has no sooner become accustomed to an attendant, and has learned somewhat to trust him, and an attendant has no sooner learnt somewhat of his patient and has acquired a salutary influence over him, than the bond between them is likely to be broken by the attendant being "sent out on call" to some distant private patient under the treatment of some other medical man, the proprietor of the asylum sharing the attendant's wages. We have known a private asylum of good repute in which this traffic in attendants was so great that at times there would be nearly as many attendants in the institution as there were patients, and at other times when *calls* had been numerous the attendants would be so few as to be quite inadequate to the proper care and control of the patients. The care and treatment of the patients cannot be equable and satisfactory when this trade in attendants is carried on by the proprietor, by which his agents and instruments of care and control are liable to constant change, being sent away on a roster of *call*, like postboys from the stable-yard of an hotel. We object to the system in this place because we believe it to be pernicious to treatment, without referring to the question as to whether it is honourable for the proprietors of asylums to derive a profit by taking from servants who are no longer under their supervision a large proportion, amounting to 40 or 50 per cent., of their wages. *We know attendants upon lunatics living in domestic privacy, who have thus paid hundreds of pounds out of their*

wages to asylum proprietors who have never seen the patients at all, and have not seen the attendants for years, nor heard from them, except to receive the annual tribute."

So far as our knowledge goes, we should say that the system of sending out attendants "on call" is limited to a very few private asylums—(are there more than two?)—and from the nature of things such a circumstance as Dr. Bucknill mentions in the last sentence must, we cannot help thinking, be exceptional. However far it may have been from his intention to do so, he has, we fear, as the matter stands, cast an offensive general reflection upon a number of men who must be entirely undeserving of it. To say that he knows attendants upon lunatics who have paid hundreds of pounds to asylum proprietors who have never seen the patients is a mode of stating the case which can hardly fail to convey to the public the idea that he is protesting against a common, if not a general, custom. The accusation having been made, it should have been more carefully limited. We trust that the persons aimed at, whoever they may be, will see it to be their clear duty to come forward to repudiate the charge, if they can do so, or to justify themselves, if they have a justification. They owe it to their profession, and especially to those members of it who are unjustly affected by Dr. Bucknill's statement, not to keep silence. We have italicized the charge in order to prevent its being overlooked.

Darwinism and Design; or Creation by Evolution. By GEORGE ST. CLAIR. London: Hodder and Stoughton. 1873.

It has often been assumed that the Doctrine of Design or Final Cause has been extinguished by the Doctrine of Evolution; and from fear of such a consequence many theological writers have denounced and rejected evolution as false and anti-scriptural. A few more thoughtful writers have, however, thought they perceived that evolution is nowise inconsistent with design, and have found in Mr. Darwin's theory new argument of the wisdom and beneficence of God. Among these must be ranked Mr. St. Clair, who in this volume sets forth in a concise, clear, and popular manner the scientific facts on which Darwinism is based, and then proceeds to

handle them as illustrations of the wisdom and beneficence of the Almighty.

We have tried to comprehend the position which Mr. St. Clair takes, but doubt whether we have fairly succeeded. To us it seems that his views deprive the Creator of the power which would belong to him as Almighty; that they present him to us as working, like man, under conditions and limitations imposed by the nature of matter; infinitely less limited conditions, it is true, but still real. The so-called "laws" are, he says, "necessarily coeval with the existence of moving matter, and therefore cannot in their nature be abrogated, suspended, or altered for a single moment." Man effects his purposes by the knowledge which he acquires of matter and motion and law, using motion and law as his tools and matter as his means. The Creator works in the same way. But just as an artificer possessing a good knowledge of the nature of his tools and material can effect more than the workman who is ignorant, power over matter being proportionate to knowledge, so the Creator, who must be supposed to have all knowledge of matter's capabilities and of the phenomena possible as results of various complicated motions, by his marvellous science (omni-science) fashions worlds and trees and human bodies. "All our difficulty arises from not applying the same rule to the divine mind and the divine action as to our own. Can the Creator reconcile absolute contradictions? If so, there is no such thing as truth. And if He cannot do so, then He can only work in nature on the principles man works on, and with the same liability to incidental results; for He works with the same material, which has its unalterable properties." Clearly then Mr. St. Clair would seem to deprive the Creator of omnipotence, while granting Him omniscience; to have an anthropomorphic conception of Him as an omniscient being working under the constraint of the unalterable properties of matter, which come of the nature of things. "Omniscience means the power to do all things that are possible, not to make contradictions agree; and if this view seems to limit the power it makes the wisdom more manifest." Assuredly it is wiser for everyone, whether divine or human, to recognise impossibilities than to run full tilt against them, and to come to grief in consequence; but it is not a little strange in one who undertakes the defence of final causes thus to compliment divine wisdom at the expense of divine power—to make the Creator prudently use His omniscience to teach

that he is not omnipotent. It has oftentimes been said that heaven itself has no power to undo the past:—

Be foul or fair, or rain or shine,
What I have possessed in spite of fate is mine;
Not heaven itself upon the past has power,
But what has been, has been, and I have had my hour.

But Mr. St. Clair must, we think, be the first who has discovered that the Creator has always worked and still works under compulsion.

We cannot but think that Mr. St. Clair has not succeeded in bringing science and theology into a thorough reconciliation in his mind; that his scientific development and his theological development have not blended in complete assimilation; that his intellectual nature is not yet in a complete harmony. To pursue the theological conception to its logical consequences, or to pursue the scientific conception to its logical consequences, would be alike fatal to his position, which, if we understand it rightly, is radically illogical.

He is careful to inform us that his views of the ultimate properties and relations of matter “leave room for other intelligences of the same essential nature as the Great Intelligence, and having the same essential relations to the world of matter, to use their power diabolically and give the natural forces a wrong impulse.” Are we to suppose then that this naughty action has not been foreseen and designed? And if foreseen and designed, how can it justly be designated diabolical? How can it be anything but divine? Does Mr. St. Clair mean to imply that the Creator works under still further limitations than those imposed by the nature of matter—namely, those imposed by intelligences who use their power diabolically? If so, what does he say to Isaiah, c. xlv., v. 7:—“I form the light, and create darkness: I make peace, and create evil: I, the Lord, do all these things;” and to Amos, c. iii., v. 6:—“Shall there be evil in a city, and the Lord hath not done it?”

Although the position which the author takes seems to be untenable, we must speak with all praise of the sincerity and candour with which one whose mind has so much of the old theological leaven accepts and expounds the doctrine of evolution. His book cannot fail to be of use in aiding to remove the ignorant fears of some of those timid persons who reject with horror, but without inquiry, the philosophy which is now known as Darwinism, and in stimulating them to learn

and ponder it. And this will be no small benefit; other things may be expected to be in due time added unto them. But we must confess that as Mr. St. Clair sets forth faithfully the long tale of carnage which constitutes the history of progress by natural selection—as he shows how from the lowest speck of living animal matter up to the highest development thereof there is an unbroken chain of suffering and death inflicted by the stronger on the weaker creature; as he suggests to our imagination the countless scenes, through countless ages, of unavailing agonies of victims and pitiless cruelties of their destroyer, until nature appears one vast charnel-house ringing with the shrieks of the tortured and the dying—and then calls upon his readers to fall down in prostrate admiration of the beneficence of the Almighty as witnessed in evolution, he appears very like a brave man struggling with adversity.

The Science and Practice of Medicine in relation to Mind, the Pathology of Nerve Centres, and the Jurisprudence of Insanity. Being a Course of Lectures delivered in Guy's Hospital. By J. THOMPSON DICKSON, M.A., M.B. (Cantab.) H. K. Lewis, 1874, pp. 453.

There is a freshness about these lectures, as there is a novelty in their title, which renders them more interesting and suggestive than some lectures that have been published on the same subject. But as the ambitious title of the book is unquestionably of far larger scope than the execution of it, so the lectures are much less complete than might have been justly expected, considering the circumstances under which they were delivered. The students of Guy's Hospital must have failed, we think, to get from them adequate notions of the different varieties of insanity, of their causes, course, and suitable treatment, although they would no doubt obtain Dr. Thompson Dickson's unhesitating opinions on many interesting matters, practical and scientific, relating to insanity. To be of use to students, lectures must be more or less dogmatic; the lecturer cannot balance reasons nicely when his hearers are in need of a definite picture of the disease which may take hold of their imaginations; but we think that Dr. Dickson has, not certainly in an arrogant or offensive manner, but with a serene self-confidence, not seldom pronounced with authority where diffidence or doubt would have been more

becoming, and settled offhand questions that will probably not be truly settled in this or the next generation. But whoever reads the book will assuredly close it with feelings of deep sorrow and regret that a sudden death should have carried off in his youth so promising an inquirer, and one from whom much good and useful work might have been expected in the future. Nature has an extraordinary method of preparing sometimes with wondrous labour and perseverance, and tempering slowly through years of trial, a complex organic instrument, and then, when the time comes for making a successful use of it, of wantonly dashing it to pieces. So has it been in times past; so will it be in times to come.

The following quotations will serve as illustrations of Dr. Dickson's opinions and of his style. Speaking of recurrent mania, he says: "Mania frequently recurs in attacks, which has given rise to an idea that there is a distinct class to be designated recurrent mania; but it is an error to consider recurrent mania as a class, the recurrence being dependent very much upon the existing cause." Again, of mania associated with masturbation he says: "Mania associated with masturbation is by some considered as a variety; but I am not inclined to consider it in this light. . . . Masturbation may be the excitant of an attack when there is a predisposition; but masturbation *per se* is not a cause of insanity. It is practised by the young of both sexes to an incredible extent, and particularly amongst the youth at boarding-schools, but insanity seldom comes of it. It rarely produces mania, and only does so in cases where predisposition exists; and after a time both boys and girls who have practised it at school give it up." Would it were certainly so!

The author has no faith in sedatives in the treatment of mania. "I cannot," he says, "in too strong terms deprecate the use of sedatives in mania." Opium, digitalis, henbane, cannabis indica, are all condemned. If from any cause a sedative is necessary, chloral will be found to be of value in some instances, although in others it is absolutely useless. "A drug of real value in the treatment of mania is to be found in alcohol. It will calm the most restless and excited mania, and will almost always induce sleep even in very obstinate cases." It matters little in what form it is administered; wine or brandy may be given, "and may be administered without stint, in any manner in which the patient can be induced most readily to take it." Take no

notice of the objections of the patient's friends who may allege that it causes excitement, nor of the opposition of the patient who may allege that it causes headache; "persevere, the headache and the excitement are the first fruits of weakness, which the alcohol will enable you to combat, and if the first dose does not calm the patient, give more." We cannot help thinking that Dr. Dickson is more happy in his advice to students concerning what they should not do with sedatives than he is in his advice to them concerning what they should do with alcohol. Probably there are some experienced physicians who would say that he has told them to do those things which they ought not to do and to leave undone those things which they ought to do; and that were they faithfully to follow his counsel they would have no health of mind in their patients.

We may conclude this short notice with a recommendation of the book to perusal; for there is a certain originality about it, arising from the fact that the author brings a knowledge of disease generally to bear upon his observation of mental disease. So far he justifies his title. Moreover, he expresses in a decided manner the opinions which his own experience and reflections have led him to form: he is not the mere retailer of second-hand information. The book is enriched with some well-executed coloured plates from the author's drawings of the microscopical appearances in the brains of the insane; and there are some often-used photographs of the insane, by Dr. Diamond, which might as well have been omitted.

Contemporary English Psychology. Translated from the French of Th. Ribot.—Hartley, James Mill, Herbert Spencer, A. Bain, G. H. Lewes, Samuel Bailey, John Stuart Mill. London: Henry S. King and Co. 1873.

Recognising that, since the time of Hobbes and Locke, England has been the country which has done the most for psychology, M. Ribot has undertaken to make known to his countrymen the doctrines of those adherents of the *à posteriori* school of psychology whose names are mentioned above. These doctrines have, he says, been hitherto unknown or very nearly unknown in France. His work is not a work of criticism, but of pure exposition, its aim having been to set forth as concisely and lucidly as possible the doctrines which

have been advocated by each of these philosophers, and to show how they stand related to one another. This aim he has accomplished very successfully. He has thoroughly entered into the spirit of the writer whose views he expounds, and has, we think, sometimes displayed them in a more clear and consistent form than the writer himself. We can cordially recommend the volume, both on account of the excellence of its matter and the directness of its style, which does not appear to have suffered much in the hands of his translator. The book will be found to be a useful introduction to the works of these philosophers for those who intend to study them; and those who have studied them will find it of excellent use in recalling to mind the principles of their systems and the arguments by which they are supported.

Manual of Lunacy: a Handbook relating to the Legal Care and Treatment of the Insane in the Public and Private Asylums of Great Britain, Ireland, United States, and the Continent.
By LITTLETON S. WINSLOW, M.B., Cant., D.C.L. Oxon.

This is a carefully compiled manual of its kind, at any rate so far as it is concerned with the provisions for the care and treatment of the insane in this country. It contains an analysis of the enactments and regulations which are to be found in the Acts of Parliament relating to lunatics, and gives all the information which is likely to be needed by those who have to do with them, either in the way of placing them under care or of taking care of them when they have been placed under restraint. Moreover, the legal provisions relating to commissions of inquiry into the state of mind of alleged lunatics, and to their subsequent care as Chancery patients, when found insane, will be found duly recorded.

The portion of the book which relates to the legal enactments with regard to the insane in other countries seems to us scanty and defective; and we doubt much whether such information as is given adds much to the value of the book. Another portion which should have been done with more fullness and exactness, or would perhaps have been better omitted, is the chapter devoted to a brief description of the various forms of insanity. Dr. L. Winslow would do well, we feel sure, to adopt a more sober, exact, and scientific strain, abandoning in future hackneyed quotations from Burton

about melancholy and fragments of poetry bearing on madness. As it stands, the chapter is too brief, vague, and general to be of use to those who require instruction in order to sign certificates of lunacy or to give evidence with regard to unsoundness of mind in courts of justice.

The preface was written by his father, Dr. Forbes Winslow, who expressed the pleasure which he felt in assisting at the *début* of his son in these words: "I am glad of the opportunity of advancing with him to the footlights of the great stage of letters, and, after an affectionate grip of the hand, and a few cheering and stimulating words, leave him to the kind judgment of his audience—the *critics*." This introduction of his son was Dr. Winslow's last public act; for since this review was written, he has been summoned by death from the stage on which he for some time played so prominent a part.

The volume is respectfully dedicated to Her Majesty's Commissioners in Lunacy. Is the author correct in so designating the Commissioners in Lunacy?

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *German Retrospect.*

BY W. W. IRELAND, M.D.

The German Retrospect is taken from the following periodicals which I have received:—

"Medizinische Jahrbücher herausgegeben von der K. K. Gesellschaft der Aerzte redigirt von S. Stricker. Jahrgang, 1873. i. und ii. Heft. Wien, 1873."

"Archiv. für Psychiatrie und Nervenkrankheiten." Berlin, 1873. iv. Band, 2 Heft.

"Allgemeine Zeitschrift für Psychiatrie und psychisch-gerichtliche Medicin." Berlin, 1873. xxix. Band, 6 Heft, und xxx. Band, i. Heft.

"Psychiatrisches Centralblatt." Wien, Nr. 2-11. 1873.

"Der Irrenfreund." Heilbronn, Nr. 1, 2, 4, 5, 6.

"Correspondenz-Blatt der deutschen Gesellschaft für Psychiatrie und Gerichtliche Psychologie." Neuwied. Nr. 3-11.

Dr. Theodor Meynert, Professor of Psychiatrie and Nervous Diseases at Vienna, fills forty-four pages in the "Archiv.," 4 Band, 2 Heft, with a description of what is already known or believed to be known of the arrangement of the anatomical elements of the brain and

medulla oblongata. He discusses with great care and minuteness the manner in which the different bundles of nerve fibres are arranged and their relation to the grey matter in the hemispheres, cerebellum, and cerebral ganglia. He intersperses a few remarks on the functions of different parts of the brain, and the bearing of the experiments of Fritsch, Hitzig, Ferrier, and Nothnagel. Dr. Meynert's descriptions are accompanied by three pages of engravings, in which the tracts of grey matter and the peripheral and centrifugal nerve fibres are distinguished by different colours. The learning and research are very great, but the verbal descriptions are difficult to follow.

Dr. Rosenthal, of Erlangen, has made some observations upon reflex action, the results of which are given in the "*Centralblatt*" (No. 10). He found that the quickness of reflex action is diminished by fatigue, and increased with the force of the stimulus and the nearness of the part excited to the spinal cord. The reflex motion is a little quicker on the side whence the stimulus comes than on the other side.

Dr. Flechsig, at the meeting of the *Psychiatrisches Verein*, in Leipsic ("*Zeitschrift für Psychiatrie*," xxx. Band, 1 Heft), gives the result of his studies on the development of the white substance of Schwann in the nervous centres of man. It appears earliest in the spinal cord and in the nerves. It cannot be distinctly found in the brain before birth; but after birth it seems to develop with great rapidity. Its characteristic colour was observed in the optic tract three and a half days after birth. Dr. Flechsig gives the period at which he noted the first appearance of the white substance in the different parts of the brain.

In the "*Psychiatrisches Centralblatt*," Nr. 5 and 6, there is an account of the experiments of Fournier and Nothnagel on the function of the brain. Both these physiologists made use of injections, the one of chloride of zinc, the other of chromic acid, into various parts of the brain in animals, and observed their effects. As Schiff has already noted, complete hemiplegia cannot be produced in the rabbit by injuries to the brain. On lesion of one side the legs on the opposite side of the body deviate towards the middle line. Those of the other side are turned outwards, but to a less degree. The same lesion appears when the injection is passed into the white substance around the cornu ammonis, and when an incision is made into the optic thalami. Indeed, such symptoms have been regarded as pathognomonic of disease of the optic thalami. Nothnagel could find no proof of localization of the different mental faculties in particular parts of the brain.

Dr. Ewald Hecker has made some ingenious observations on the physiology of laughter, which are recorded in the "*Zeitschrift für Psychiatrie*," xxix. Band, 6 Heft. Laughing may be produced in two ways, by tickling or by the presentation of a humorous idea to the mind. The application of a stimulus to the sensory nerves has been

proved by Nothnagel and others to produce, through the agency of the sympathetic nerves, a contraction of the blood vessels, and this condition is known to be accompanied by dilatation of the pupils. Dr. Hecker has found, by careful observation, that during the process of tickling there is a slight but decided intermittent dilatation of the pupils. This is best observed with young people. Dr. Hecker, therefore, assumes that during tickling there is a contraction of the vessels and an increase of the tonicity of the vascular walls. There is thus a relaxation of the pressure of the vessels on the brain, and by the *vis a tergo* effect of the muscular movements which accompany laughing, the blood is drawn from the veins to the heart during inspiration, while during expiration the column of venous blood is arrested. This explains the swelling of the jugular veins and the reddening of the face during violent laughter.

The author, therefore, concludes that laughing is a reflex movement destined to counteract the intermittent relaxation of pressure on the brain, through an increase of pressure. The cause then of laughter seems to be a diminution of the pressure of the vessels on the brain through an increase of the tonicity of their coats. Dr. Hecker affirms that when a comical idea is presented to the mind causing laughter there is also a dilatation of the pupils.

I may here observe that there is another way by which laughter may be produced, viz., by forcibly pressing with both hands the arms and legs from the extremities upwards, so as to push the column of venous blood in the limbs towards the heart. As this is very likely accompanied by a lightening of the pressure of the venous current upon the brain, it may be held to be a confirmation of Dr. Hecker's theory.

It appears from a notice in the "Centralblatt" (No. 10) that Dr. Hecker has published a pamphlet of eighty-three pages, upon the "Physiology and Psychology of Laughter and the Comic," Berlin, 1873, in which his studies on the subject are pursued.

In the "Zeitschrift für Psychiatrie" there is a review of Dr. Fetscherin's report upon insane people and idiots, in the Canton of Berne. There were 1,512 idiots and cretins, and 1,292 lunatics; in all 2,804. This makes as many as one person of unsound mind to every 180 inhabitants. In the Canton of Aargau there is one to every 154 inhabitants; in Zurich one to every 192. This is a much higher proportion of the insane than in France, England, or Germany, where the proportion is said to be one insane to every 310—350 people. It appears to me that a census of this kind is much better taken in a small republican canton than in great countries with centralised governments. I could easily prove that the census of idiots in Great Britain is very delusive.

In the year 1846 there was a census of insane people in Berne; and the number of lunatics and idiots, or demented (Wahnsinnige und Blödsinnige) was 3,082, being a diminution of 278. "Without doubt," the reviewer remarks, "this is the first census which shows

that the number of insane have diminished within the last 26 years." The diminution may be solely in the number of cretins.

Medical writers have stated cretinism to be decreasing in many places, and it is expressly said farther on that this is believed to be the case in the Canton of Berne, as well as in the rest of Switzerland. In all statistical returns of idiots which I have seen, the male idiots considerably out-number the female idiots, save in the present census, where, out of the 1,512 idiots and cretins, there were two more females than males. Possibly cretinism may be commoner with females than males, which would explain the discrepancy. Two only of the idiots have been married, one of whom has the misfortune to be a widower, and the other separated from his wife.

Professor Betz, of Vienna (*"Psychiatrisches Centralblatt,"* number 7), in a demonstration of the brain of an imbecile and two idiots, has noticed the difference of the convolutions from the normal type. He finds that the arrangement of the grey matter is different both from that of the human brain and that of the ape. The bridging convolutions of the external occipital fissure were deficient in the idiot, while in normal human beings the grey substance of the brain is a conjoined mass (*eine zusammenhängende Masse*), in the idiots the connections are not so close (*auseinander geworfen*).

Dr. W. Erb (*"Archiv,"* iv. Band, 2 Heft) has a long paper upon Tetanus, with remarks upon the method of ascertaining the excitability of motor nerves to electricity. After comparing the excitability in sound and diseased subjects in a careful manner, Dr. Erb has arrived at the conclusion that in case of tetanus the excitability of the motor branches of the spinal nerves is much greater than in health, both to the continuous and interrupted current. Excitability of the motor cerebral nerves is not increased. He concludes from this that tetanus has its seat in the spinal cord, and that the spasms are the result of its increased excitability, which does not always remain the same during the disease, but is sometimes greater and sometimes less.

Dr. Erb tried the application of electricity as a therapeutic agent. He applied the anode to the spine, and the kathode to the sternum, and also directed a descending stream from the neck to the nerves of the arm. After this treatment there was some improvement, which soon, however, passed away. Dr. Erb then tried to concentrate the power which the anode has to diminish excitability by putting it upon the nervous trunks of the arm and the kathode upon the nape of the neck. In this way he applied a pretty strong current for some time. He did not observe any notable influence upon the increased excitability, but the spasms diminished, and gradually disappeared, whether in consequence of the treatment or from some other cause, he is unable to state with confidence. Dr. Erb shows the great difficulty of measuring the amount of galvanic electricity and the frequency of fallacy in physiological illustrations of this kind. Not

only is the galvanometer inconstant, even with the greatest care and attention, but it is extremely difficult to insure that the same amount of electricity enters the nervous or muscular tissues. The varying size of the electrodes, the wetness of the sponges, the conductivity of the skin, and of the subcutaneous fat, have all to be considered, as well as the exact spot of either electrode. Those who prosecute inquiries of the kind will find assistance from the methods described by Dr. Erb, though his descriptions are obscured by hazy sentences.

Dr. Rabenau, in the *Archiv.*, has made a number of observations with a view of finding out the pathological conditions of general paralysis. He thinks that his researches confirm the observations of Westphal, who held that general paralysis was accompanied by granular cells and corpuscles in the spinal cord. This, as Dr. Rabenau remarks, might explain the psychical peculiarities. On the other hand, he affirms that the loss of motion and sensation does not occur in those patients in whose spinal cords no change is found after death. He also wishes to put aside those cases where general paralysis is the result of chronic alcoholismus, of tumours of the brain, or where the only observed symptom during life is that of mental derangement. Taking, then, the cases which remain where injury to the motor and sensory functions of the spinal cord was observed during life, in common with the psychical symptoms of general paralysis, Dr. Rabenau sets himself to find lesions in the brain which would explain the mental aberration, and succeeds in several cases in detecting disease in the pyramids of the medulla oblongata, in the pons, and in the crura cerebri, as well as in the tract between the corpus striatum and nucleus lenticularis, and also in the centrum ovale of Vieussens. In these parts he found numerous granular cells, which could only be detected through the microscope, and, indeed, he notes that the parts appeared healthy to the naked eye.

Out of 26 cases where the spinal cord was diseased, he found the pyramids of the medulla had granular cells in twenty cases. In two cases they were not examined, but in four no morbid alteration was detected. In only nine cases were the crura cerebri diseased, and the presence of granular cells in the pons seems to be even less common.

It would appear from Dr. Rabenau's researches that in many cases of general paralysis no disease of the brain can be found. Other microscopists will, I dare say, find fault with his conclusions and manner of reasoning, especially with a distinction which it is best to give in his own words: "I have only here noted the granular cells which occur free in detached preparations; those which adhere to the vessels I have left out of notice. * * Those granular cells which adhere to the vessels of the spinal cord and brain are met with in entirely different diseases, and have no direct connection with paralysis." It is true the vessels, for the most part, suffer degeneration in pro-

gressive paralysis; but this degeneration is in no way confined to the spinal cord, the pyramids, the pons, and the crura cerebri." Some, too, will likely demur to the separation of cases where the clinical symptoms were the same, apparently to support Westphal's theory on the connection of certain symptoms with a microscopic alteration of the tissues.

In the "*Zeitschrift für Psychiatric*," xxx. Band, 1 Heft, p. 116, there is a short notice of Dr. Lubimoff's researches on the pathological lesions in dementia paralytica. He found alterations in the vessels, neuroglia, and band of Remak, both in the convolutions and in the cerebral ganglia.

In the "*Archiv*," iv. Band, 2 Heft, Dr. Linstow describes a case of insanity following syphilis. The subject was a soldier, who led a dissipated life. He had paralysis of the left side, with melancholia passing into mania. Dr. Linstow thinks that the cause of these affections was syphilitic neoplasms at the base of the skull on the right side. The patient was discharged, cured, after having been insane nearly two years and a half. The author considers curability a distinctive feature in syphilitic insanity, while general paralysis, which some physicians regard as always of syphilitic origin, is invariably fatal in a few years.

Syphilitic insanity, he remarks, may be dependent upon—1. Anæmia of the brain; 2. Hyperæmia, meningitis, or inflammatory softening of the brain; 3. Tumours in the brain and meninges.

At the *Psychiatrischer Verein*, held at Leipzig, in August, 1872, reported in the "*Zeitschrift*," xxx. Band, 1 Heft, Dr. Heubner gave a case illustrating the influence of syphilis upon the larger arteries at the base of the brain. The patient was a man who contracted syphilis in 1860, when he was twenty years old, followed by a number of constitutional symptoms. In 1869 he suddenly became unconscious, and on passing out of this state lay in a drowsy condition, with occasional convulsions for five days. After this he felt great muscular weakness and dimness of sight, which, after some changes for better and worse, ended in total blindness. The man had enlarged glands and a fluctuating gummatous tumour, about the size of a cherry, on the forehead. He had also epileptoid attacks, leaving behind them drowsiness for several days. He died after having been a year in the hospital.

On dissection there was found syphilitic infiltration of the base of the brain and the parts adjoining. This covered the front of the pons and the posterior part of the commissure of the optic nerves, and the front part of the left frontal gyrus. The basilar arteries and the left carotid were embedded in the infiltration, and their calibre as well as that of the smaller arteries reduced by thickening of their coats.

Dr. Müller, of Leutkirch, has a series of articles on Brain-Syphilis in the "*Correspondenz-Blatt*" (see Numbers 5, 6, and 7), in which he tries to clear up the differential diagnosis between general paralysis and brain disease of syphilitic origin. One of his cases very well

illustrates the difficulties in the way. The man was believed to have general paralysis, when an osseous tumour was noticed on the sternum, and under the administration of iodide of potassium he quickly recovered.

Dr. Müller considers that alterations in the coats of the arteries, with a diminution of their calibre, and consequent mal-nutrition and degeneration of the tissues of the brain, are common to both diseases, and account for many of the symptoms being in common. In the syphilitic cases the morbid alterations are not confined to the arteries of the brain, or to the brain itself; they extend to the membranes and the bones of the skull, causing pressure on the nerves at their foramina of exit. Syphilis also causes alterations in the sympathetic nerves, hyperplasia of the interstitial connective tissue with pressure upon the nervous cells and fibres. Amongst the symptoms common in brain-syphilis, and on which he is disposed to rely in diagnosis, are headache and æsthesia of particular spots of the cutaneous surface (which are much more common than neuralgic pains). There are also sometimes epileptoid fits and attacks of paralysis, which, though they sometimes pass away in a few days, are, as a general rule, more liable to continue than the paralytic attacks of general paralysis. In brain-syphilis, single cerebral nerves not unfrequently lose their power, which rarely happens in general paralysis; in the former disease, too, the paralysis comes on gradually. In the latter it generally appears without warning. It strikes me that these distinctions are of more use to establish two separate generalisations of disease than to assist us in detecting them in special cases. The curability of brain-syphilis is without question the clearest as well as the most valuable distinction; but it is inconvenient that the curative treatment should go before the diagnosis.

Dr. Wille, of Rheinau, Zurich, reported in the "*Irrenfreund*," Number 1, takes much the same view as Dr. Müller. He thinks brain-syphilis a quite different disease from general paralysis, and rests the distinctive diagnosis upon the headache, local anæsthesias, &c. The existence of progressive paralysis with fatuity in a man still under twenty-one would indicate syphilitic insanity. According to Dr. Wille, the mental symptoms are a state of hypochondriacal melancholy, followed by increasing hebetude of intellect, with loss of memory, but without the grandiloquent delusions of general paralysis. This state of depression sometimes alternates with acute delirium; in other cases the insanity appears abruptly in the form of acute mania.

The prognosis is good when the mental symptoms are without complication; when accompanied by convulsions or local paralyzes they are doubtful; when the symptoms simulate general paralysis the prognosis is worst.

In some cases, diagnosed as syphilitic insanity, no lesions were detected after death. The treatment recommended is iodide of potassium and mild mercurials.

Dr. P. Petrow, in "*Virchow's Archiv*," lvii., 1 Heft (quoted in the

"Centralblatt," No. 7), gives the results of microscopical examination of the sympathetic nerves after constitutional syphilis. In the nerve cells he found increase of the pigmentary matter and degeneration of the cell-wall. Some of the cells had undergone the colloid degeneration. He also found hyperplasia of the connective tissue.

In the "Centralblatt," Number 3, there is a short account of the contents of a monograph upon "Hirnsyphilis, von Dr. Otto Braus, Berlin, 1873."

The author has collected above one hundred cases of brain-syphilis. The disease may appear a few months after infection, but generally later. Among the symptoms mentioned are headache, giddiness, sleeplessness, starting of the limbs, with alteration of character, and often weakness of memory. Out of a hundred cases Dr. Braus found paralysis in 82; of these there was paralysis in the optic nerve in 34 cases; in the facial in 27; in the hypoglossal nerve, 22; in the bladder, 17; in the intestines, 15. In 31 cases there was hemiplegia; in 18 cases paralysis of a single limb; and in 8 cases paraplegia. As a general rule, the paralysis was incomplete. In 45 cases out of the hundred the mind was deranged.

A short report of destruction of the anterior convolutions without any aphasia, occurring in Sweden, is given by Dr. G. Bergmann, of Stockholm. A man fell from his horse, and received so violent a blow upon the forehead that several pieces of the frontal bone were driven in, and some pieces of the brain oozed out of the wound. He lived seven days after, retaining his consciousness for the most part clear. There was no loss of power, save paralysis of the right side of the face and paralysis of the detrusor.

There were frequent convulsions, especially on the left side, in the upper and lower extremities. Sensibility, sight, and hearing remained good, nor was there any loss of memory. On the fourth day he fell into a state of quiet delirium, from which, however, he could be roused when spoken to. The power of speech still remained unaffected.

On examination, it was found that the frontal gyri on both sides were partially destroyed. On the left side gangrene had appeared, and the third frontal convolution (the first of Meynert) was entirely destroyed, and the convolutions of the island of Reil affected in great part. It has been assumed that on destruction of the left side its function may after a time be learned by the corresponding convolution on the right; but in this case speech was not affected, nor was there any time for the right side to learn its new duties, had it been in a state to do so.

Mr. Rudolf Arndt ("Archiv," iv. Band, ii. Heft) fills thirty-four pages with the case of a young woman who was six weeks ill in the Asylum of Greifswalder. Before her death the diagnosis was made of a sarcomatous tumour of the pia mater at the base of the brain, between the crura cerebri, impinging upon the pons, and pressing more upon the right crus than upon the left.

As this diagnosis was confirmed by examination after death, the

reader will perhaps like to learn the ingenious process of reasoning by which it was made out. Among the symptoms were loss of power in the limbs, frequent recurring dilatation of the left pupil, increased pulse, anomalies in the secretion of the mucus of the nose and saliva, sickness, with pain in the head, giddiness, dragging of the limbs, pricking sensations, apathy, and at last fatuity.

From the order in which these occurred it was thought that they depended upon one lesion, and that this lesion must be at the base of the brain at a place where the nerve fibres collect together before being distributed to the different organs of the body. Since both extremities were affected the lesion could not be confined to one hemisphere. For the same reason, and because there was no disturbance of vision nor of smell, the lesion could not be in the anterior part of the base of the skull. The sight being good and the pupils contracting to the light, the lesion could not implicate the corpora quadrigemina. The impairment of the intellect, the absence of pain, and of the ominous knocking in the occiput, as well as the absence of all disturbance of vision, made it also probable that the disease was not in the cerebellum, although the loss of mobility might lead one to suppose this to be the case. All went to show that the lesion was at the base of the brain, near the pons and medulla oblongata. There was no trace of sugar in the urine, no disturbance of hearing, and no deficiency in the articulation of speech, which last deficiency has been found to be associated with lesions of the olivary bodies and pyramids of the medulla oblongata, or pressure upon the floor of the fourth ventricle. The disease could not then be in the medulla oblongata, so it must be either in the pons or in the crura cerebri; but there never had been any crossed reflex spasms, and difficulty of swallowing (which is common in disease of the pons) had not appeared at the beginning; besides, affections of the pons are for the most part on one side. Here, however, the symptoms on the left side of the body were sometimes more prominent, though very slightly so. The disease then must be in the crura cerebri, or between them. The slow and gradual march of the symptoms, and the absence of any sudden shock or sign of inflammation of the brain rendered it probable that it was a tumour which they had to deal with, instead of an abscess or extravasation of blood.

The author goes on to show the differential diagnosis between tumours of various kinds. The article is worth reading, though it might have been improved by compression.

Dr. Meynert, at a meeting of the Society of Physicians, in Vienna, reported in the "*Jahrbuch*," 2 Heft, gives another case of diagnosis of a local lesion founded upon an intimate knowledge of the functions of the nervous system. The subject was a woman 37 years old, who had insufficiency of the mitral and aortic valves with hypertrophy of the heart. In 1871 she began to have violent headache, vomiting, and whirling of the body to the left. This soon passed

away, to be followed by painful spasms of the limbs of the right side and violent headache, which lasted longer than the previous symptoms. In 1872 she began to be blind, and at the end of March could not distinguish night from day.

By-and-bye appeared hemiplegia on the right side with hyperæsthesia of the skin. Stimulation being applied, brought out reflex motions on the right side. There was a slight loss of power on the right side, in the respiratory tract of the face, in the uvula, and the velum palati. The muscles of the forehead and eyelids were unaffected.

At the end of 1872 the symptoms had become modified. The paralysis of the limbs on the left side is complete, the loss of power in the face is less marked, the hyperæsthesia of the skin is replaced by a paralysis of sensation. Impressions are hardly felt at all, pricks with a needle, if repeated, are felt, but later than when they are made. The loss of sensibility is on the left side of the body, but on the right side of the face. Dr. Meynert diagnosed encephalitis from the heart affection, and disease of the pons on account of the facial paralysis being on a different side with that of the limbs. He explains the other symptoms as follows:—The whirling of the body to the left shows disease of the *crus cerebri*; the incomplete character of the paralysis of the facial nerve and its limitation to the under part of the face probably excludes a tumour of the base of the brain, for in that case the whole root of the facial nerve would have been implicated and the paralysis would have been more complete.

The crossing of the loss of sensibility in the body to the left (in the face it appeared on the right side) shows that the root of the fifth pair on the right side is affected. This is given off from the pons and the medulla oblongata, without any decussation, whereas the crossing of the posterior pyramids accounts for the hemiplegia being on the left. The disease was then in the right half of the pons, and implicated the lower nucleus of the facial nerve. This nucleus, as the learned Secretary (Rokitansky) remarks, has never before been taken into account in diagnosis. The facial nerve has two other roots, and this explains how the paralysis was incomplete. The diagnosis has not yet been confirmed by necroscopy, and no explanation is given of the blindness.

Dr. Rosenthal added some remarks upon cases which he had studied of tumours implicating the pons and *crura cerebri*. Amongst other symptoms mentioned, Dr. Rosenthal has found partial turning of the axis of the body (*Axendrehung*) with rotation of the head forwards, crossed hemiplegia with paralysis of the trifacial abducens oculi and acoustic nerves. On section there was found a tumour of the size of a hazel nut involving the left half of the pons and the left *crus cerebri*. In a case of hemiplegia, with intermittent paralysis of one side of the face, there was loss of contractility to the interrupted current. Another instance of successful diagnosis of tumour implicating the *crus cerebri* and corpora quadrigemina may next be

given in the "Anzeiger" attached to the "Jahrbuch," 1 Heft. Dr. Meynert holds that the symptoms observed after division of the left corpora quadrigemina, bending of the head to the right side, flexion of the right arm and extension of the left one, are not owing to paralysis of the muscles which might counteract such motions. The power of the will over the muscles is not affected, but the muscular sense is injured, and the subject cannot correctly judge of the amount of muscular contraction to apportionate it so as to produce the equilibrium necessary for a sustained position.

In the report of a meeting of the Psychiatrischer Verein for the Rhine Provinces, Dr. Ripping gives some cases of tumours of the brain which are of interest, and very well described.

Dr. T. H. Tilling, in the St. Petersburg "Medical Journal," 1872, No. 3, quoted in the Centralblatt, Numbers 5 and 6, has given an account of three cases of tumours of the cerebellum. The first was that of a woman 38 years old, who had suffered for some years from headache, which, for a few weeks before her entry into the hospital, had been quite intolerable. There was also vomiting and giddiness, noise in the ears, some loss of power in the left side, pain in the lower cervical vertebræ, and behind the right ear and in the right side of the chin, constipation and emaciation. There was nystagmus, and, on examination, the ophthalmoscope showed the presence of neuro-retinitis, with ecchymosis in the retina.

On examination there was found a cone-shaped tumour at the base of the right hemisphere of the size of a half rouble. It displaced the flocculus and the tonsil, and pressed the medulla oblongata towards the left. The right side of the medulla appeared atrophied. There were atrophy of the nerves of sight and smell, and hydrocephalus. In this case the paralysis was crossed. Luys has observed that in paralysis resulting from disease of the cerebellum the paralysis was on the same side as the lesion in eight cases out of fourteen, but here it will be noted that there was pressure on the medulla oblongata. There was, however, dullness of sensation in the right arm.

The second case was a man of 28 years of age who had violent pain in the forehead which lasted for six weeks, after which the headache was replaced by giddiness. There was neuro-retinitis of the left eye; the tongue, when protruded, was turned to the right. There were no other signs of paralysis. The patient died of marasmus five months after the beginning of the disease. There was found a tumour about the size of a bean in the right occipital convolution, which seems to have brought out no particular symptom, but near the vermiform process of the cerebellum there was a yellow tumour the size of a walnut, implicating both sides, and on the left hemisphere of the cerebellum a third tumour about the same size. The nucleus dentatus on this side was so much destroyed that it could scarcely be recognised.

The third case shows that the degeneration of the fibres of the pons

can call out the same symptoms as disease of the cerebellum. There were headache and marked giddiness, injury to the sight and hearing, diminution of power and anæsthesia of the left side reaching at last to paralysis of the left leg and arm. The right arm was diminished in power; the intelligence remained unchanged, if we except a certain degree of apathy. On examination there was found a tumour on the right side, implicating the medulla oblongata and the horizontal fibres of the pons. The superficial fibres descending from the pons, and behind these the pyramids, in all a layer of four lines thickness, had escaped from the tumour.

Mr. Gaston Sieffert, in a thesis quoted in the same number of the "*Centralblatt*," gives an account of two cases of tumours of the cerebellum. In both the principal symptoms were neuro-retinitis and headache. No mention is made of giddiness.

In the "*Centralblatt*," No. 11, there is an account of some observations of Dr. H. Curschmann on the effect of lesions of the crus cerebelli. In a patient under his care the head was turned to the right and held slightly forwards. The decubitus was always on the right side; if turned he persistently resumed the old position. After death a small extravasation with a reddish-brown spot of softening was found in the right crus cerebelli. Experiments on animals were found to produce, with lesions of the crus cerebelli, a constrained decubitus on the same side as the lesion.

We have a paper by the editor of the "*Archiv.*," Dr. Westphal, 4 Band, 2 Heft, upon Diseases of the Spinal Cord. He gives us three cases, very carefully studied, of disseminated myelitis in grown-up people, and shows that the inflammation was spread over patches of the spinal cord, with sound portions of tissue intervening. One of these cases followed small-pox, another syphilis, the third phthisis. He points out the resemblance between these diseases and some described by Damaschino under the title of Infantile Paralysis, and shows that this latter affection sometimes follows fevers in children. In like manner partial paralysis, with atrophy of the muscles affected, has been noticed after acute disease in grown-up people, especially after small-pox. Dr. Westphal argues that what has been called infantile spinal paralysis is not entirely confined to children, but also occurs in grown-up persons. He failed to find in adults the division of the nerve cells, especially in the anterior horns of the spinal cord, which has been observed in the cases of children. He, however, thinks that this condition may be the result of atrophy following on an old myelitis. The paper is illustrated by engravings of sections of the spinal cord.

In the next article Dr. M. Bernhardt gives some cases which lend support to the views of Dr. Westphal. The most striking is that of a man who had almost total loss of the power of the lower limbs and great diminution in the power of the arms, while the sensibility was well preserved. On trying electricity it was found that the interrupted

current had very little effect in arousing contractions of the paralysed muscles, while the excitability to the combined current was very slightly diminished in the affected parts, while in some muscles it was actually increased.

In the "*Jahrbuch*" for 1873, 1 Heft, there is an account of the observations of G. Bizzozero and C. Golgi on the degeneration which is undergone by the muscular tissues after the division of the nerves going to the part.

At a meeting at Leipzig ("*Zeitschrift*," xxx. Band, 1 Heft), Dr. Meschede gave a very curious case of demoniacal possession. The patient was a man about 47 years of age. He believed himself possessed of two spirits, one of whom spoke Polish, the other German. Between the two they made such a noise that he felt quite bewildered. Generally he heard the voices in his head, but sometimes they seemed to come from the neck, chest, or abdomen. He said he had two spirits, who had their abode in his head, and who controlled his thoughts and influenced his will. Sometimes he struggled against them, but generally he had no power to resist them. One was the spirit of his father; the other of a man whom he named. They abused one another, and suggested bad and shameful thoughts to his mind. Sometimes, in despair and full of rage, he would hold his clenched hand before his eyes and cry out, "Accursed spirit in my brain, I know I cannot get rid of you; but you will perish with me." This unfortunate man died of a perforating ulcer of the duodenum, and there was found in his head four cysticerci, which had hollowed out the surface of bone at the sella turcica, and were partly covered by the chiasma of the optic nerve.

One of these cysts contained a still living, another a calcified, scolex of the *tænia solium*. A calcified cyst was also found in one ventricle. The arteries of the base of the brain were atheromatous, and there were some alterations of the right olivary body.

The author is disposed to refer many of the symptoms to the presence of the living parasite under the commissure of the optic nerves. The patient had described the visions and representations which forced themselves into his mind in the following manner:—"Strange thoughts and images of all sorts crowded into his consciousness, destroying the quiet flow of his thoughts. Scarcely had he begun to think when other representations and thoughts mix themselves with those which he has already in his mind, accompanied by corresponding images upon the field of vision which moved before his eyes, generally appearing to cross from right to left or from left to right. The words spoken by the spirits seemed to come sometimes from one side and sometimes from another."

In the "*Zeitschrift für Psychiatrie*," xxx. Band, 1 Heft, there is a long account of a case of religious insanity in a shoemaker, who, if he had lived two hundred years ago might have founded a new sect, or who, if living in the East in our own times, might have been revered as an inspired teacher.

In the same number we have reports of the subjects discussed at meetings of the "Psychiatrisch" Speciality at Berlin and Leipzig. There is especially a paper on catalepsy and insanity, and a description of cases of insanity excited by the recent campaigns in Austria and France.

Dr. M. Bernhardt, "Archiv.," iv. Band, 2 Heft, points out a case already recorded by Griesinger (*Gesammelte Abhandlungen*), which seems of interest in connection with the recent observations of Fritsch and Hitzig upon the electrical excitability of the brain. It was that of a man who had involuntary motions of the right leg, with convulsive motions of the right arm. At last the side seemed to become paralysed, and the convulsions were followed by loss of consciousness. Shortly before his death the convulsions and paralysis affected also the left side. On section large cysts were found on the right side of the falx cerebri, about the middle of the vertex of the head, and other cysticerci of smaller size were found in different parts of the brain; but there was none in the deeper parts. From this observation Griesinger was led to the conclusion that the part on the left side, where the cysticerci were largest, had an influence on the movements of the lower extremities. Dr. C. Westphal, commenting upon the contribution of Dr. Bernhardt, gives an account of a case where the existence of cysticerci was suspected during life. The symptoms on which he is disposed to rely were confusion in the intellect and a rotatory motion of the arms, which seemed to hold the mean between a voluntary and convulsive character. The skin and eyes were examined for the parasites without success; but numerous cysticerci were found in all parts of the brain.

Dr. C. Westphal has kindly sent us a reprint of a paper in the "Berlin Klinische Wochenschrift" (1873, No. 18), giving an account of a case of intra-cranial echinococci, ending in recovery, which is remarkable, not only for the extraordinary nature of the details, but for the masterly manner in which they have been studied and reported. The subject was a lad of seventeen received into the hospital of Charité, at Berlin, in November, 1872. His illness had commenced about the end of the previous May. The symptoms were head-ache, vomiting, and photophobia, which passed away, leaving weakness of sight in both eyes, and blindness of the right eye with exophthalmos. There was a weakness of the left arm and leg, and frequent pulse. A bulging of the right temple gradually appeared, and a crack or split could be felt in the bone on the 23rd of December.

On the 31st of the same month the first echinococcus passed through the opening; and from this date until the 20th of February, 1873, as many as ninety bladders of all possible sizes, from that of a man's fist to that of a pea, found their way through openings in the wall of the temple, the parietal bones, and the nostrils.

On the 13th of March the lad left the Hospital, the issues having closed. He recovered from all the symptoms save the blindness and exophthalmos of the right eye, and the weakness of vision of the left.

Dr. Westphal is inclined to think the parasites had their first seat in the right orbit, and that in any case their origin was extra-cerebral, either without or within the dura mater, but only acting upon the brain by pressure or displacement.

Dr. Arndt treated of the sensations which accompany great mental distress; the most frequent of these is, as every one knows, a feeling of soreness about the heart.

When this feeling is very powerful, it occasions symptoms which cannot be separated from those of angina pectoris. Every time one feels heart sore he has a slight angina pectoris. The abnormal rhythm of the heart following on great mental distress is communicated to consciousness through an abnormal excitability of the nerves of that organ.

Dr. Arndt would treat the feeling of misery so common in asylums, and which is accompanied by pain about the region of the heart, in the same manner as he would treat angina pectoris. For this purpose he recommends the anti-spasmodics and the galvanisation of the pneumo-gastric and other nerves which regulate the heart's action, as well as quinine and digitalis, which act directly upon the nerves of the heart. Opium he has found of little use, and often the cause of much harm. He says nothing of nitrite of amyle.

In the "Irrenfreund," No. 5, there is a case of loss of memory for events occupying several months of a man's life. During this time he was treated with extraordinary inhumanity by his wife, who drove him out of his house because he had lost in business all his money, save what he had settled upon herself. The man's memory was good for events following this defined period. He had no delusions, but when received into the asylum at Münsterlingen was in a most apathetic condition. It was thought that he could soon be discharged.

Dr. Meschede, of Schwetz, read a paper on "Persistent Delusions in Early Childhood." He considers that insanity is much more frequent in childhood than has been supposed, and gives a case of the kind occurring in a child of five years and nine months old. This was a little girl, who had been quite healthy up to the fourth year of her life, after which she had intermittent fever. At the close of the fifth year she suffered from hooping-cough, which lasted for fourteen weeks, and was accompanied by frequent bleedings at the nose. Soon after, the first symptoms of mental derangement were observed. She complained of sudden feeling of cold or heat in the head, and this was soon succeeded by hallucinations of vision, hearing, and common sensation. She said she saw her playfellows appear at the window to strike her, saw bread lie upon an empty plate, and believed that her food contained injurious substances. She heard her little sister, a child of five weeks old, distinctly cry while she was fast asleep, and the room was quite quiet. She complained that her other sister who was three years old had affronted and spoken ill of her; that she had thrown a piece of wood after her, and had stuck it in her nose, and

had struck her with a whip. She complained that her mother had put things in the bed which made it uncomfortable, and said that worms were crawling upon her eyes and hands. She was often in a state of terror that some one would come to steal her and her sister, and would not be appeased until her mother had locked the doors.

These paroxysms of insanity occurred with intervals of sanity, and were not accompanied by any symptoms of fever or inflammation. After a time, however, an attack of eclampsia supervened, which was succeeded by cerebral congestion ending in death. In the discussion which followed a number of cases of insanity in children were mentioned, in which melancholia and hallucinations were the most prominent characteristics.

In the "*Centralblatt*," number 3, there is an account of a girl of the poorer class who was in the habit of seeing apparitions. Amongst other spectres she saw the figure of some one lately dead, who touched a piece of sackcloth which she (the ghost seer) had in her hand, and burned four holes in it. The high temperature of the ghost's fingers is explained by the place she came from; in this case it was purgatory. I have heard several stories resembling this when I lived in the Rhine country. The doctor who reports the case can find no symptom of mental derangement about the girl.

In the "*Irrenfreund*," number 6, there is an interesting contribution from the late Dr. Friedrich Karl Stahl, who had long been a diligent and successful worker in the field of medico-psychology. It gives a description of a case of *Melancholia Metamorphosis*. A man of thirty-three was brought, in June, 1854, into the Asylum of St. George, because he had tried to eat a child and had killed and eaten a young sheep. The most remarkable thing in the description of this man is the enormous hypertrophy of the parotid glands. He had assumed the habits, as he had manifested the appetite and passions, of a wild animal. After two months' residence in the Asylum he showed great improvement. It is scarcely needful to point out the resemblance between this case and those known in medical history by the name of *lycanthropes* or *werwolves*.

Dr. Sponholz, in the "*Zeitschrift für Psychiatrie*," xxx., Band., i. Heft., writes upon the influence of bodily diseases and mental derangement. During thirty years' experience with two thousand cases of insanity under his care, he has only noticed two cases where recovery seemed to be accompanied by critical perspirations. He considers that lunatics resist morbid causes better than sane people, and that the insane recover quickly from wounds and illnesses. Some authors have observed recoveries from insanity to follow intermittent fever. He has not been able to observe any such effects, though from the situation of his asylum ague sometimes appears. Dr. Sponholz gives some cases where recovery from insanity seems to follow the accession of diseases such as cholera, measles, and erysipelas. These instances are few, and occur amidst a large number of cases, so that after all, they may be

simply coincidences. As a general rule, he is confident that the delusions of the insane are not in any way cured by bodily illnesses; in some cases they are made worse. This is especially the case with organic diseases of the heart, which increase the delusion, and surround it with such horrible agony, that suicide is sought as a relief with a persistence which requires incessant watching. Dr. Sponholz advocates the use of Autenrieth's ointment rubbed upon the scalp, though, as he remarks, it may not be very prudent at a time when mild measures are all in all to recommend a proceeding of such severity, and which cannot well be carried out without the help of the camisole. He has tried rubbing an irritating ointment on the neck upon 130 cases of confirmed insanity, and of these 55 were discharged, of whom 12 had relapses. We infer from Dr. Sponholz's remarks that he has not used the treatment since 1860, so that one feels curious to know why he has discontinued a method of treatment of which he approves.

As promised in our last Retrospect, I give an outline of Dr. Hitzig's paper on "The Relative Value of some Methods of Applying Electricity," in the "*Archiv.*," iv. Band, 1 Heft.

Hitzig regards it as now settled that we can send the continuous current through the brain or any part of the body in the direction indicated by the application of the electrodes. He cites with approval the experiments of Brenner. This observer found that the sensation of hearing was excited when the chain was closed, if the kathode was placed in the ear or near the ear; but when the chain was opened the sensation of hearing could only be produced by the anode (instead of the kathode) being applied. In no other way could the sensation of hearing be excited by galvanization.

From his experiments Brenner drew the following conclusion—that in using galvanism for therapeutic purposes one or other pole should be applied as near as possible to the nervous tract on which it was wished to act, and that the other pole should be kept at a distance. In this way he hoped to obtain the specific effect of the nearest pole without the modifying effect of the other. If a calmative influence were desired, the anode should be used; if stimulation were desired, the kathode should be applied.

Dr. Hitzig, however, argues at great length that experiments upon other nerves do not bring out the same results as are produced on the acoustic nerve. This he explains by a consideration of its peculiar position. It is a short, straight nerve, losing itself at the other extremity in the fibres of the brain. We can, he says, at pleasure subject the auditory nerve to the one or the other modification, *i.e.*, put it into a state either of anelektrotonus or katalektrotonus, but we can only put the other nerves into both modifications of sensation at once. The current passes through the auditory nerve only in one direction; in other nerves in from two to five directions. A method of treatment, he remarks, whose healing power depends upon the raising or lowering of nervous irritability will only be efficaciously applied when one knows that the cause of the disease consists in the lowering or

raising of this irritability, and if we can successfully cause the alterations of irritability existing during the duration of the galvanic current to continue sometime after its cessation. This last Dr. Hitzig believes, from general observation as well as from special experiments on the muscles of frogs, not to be the case. All we know at present, he thinks, is the property of electricity to act as a stimulus to the nerves. The half constructed bridge built for physiology to pass over must be broken down, and we are again sent back to empiricism. It strikes us that many of the explanations of electrical phenomena in the living body explains only a few facts, and do so in an awkward manner; that they are difficult to understand, and more difficult to remember, and that a wider range of experiment always tends to make them doubtful or insufficient.

Dr. Tigges, in the "*Zeitschrift für Psychiatrie*," xxix. Band, 5 Heft, has a long article upon "Cases of giddiness with double vision, and their treatment with the constant current." He finds giddiness with double vision frequently connected with gastritis, and gives a careful analysis of the symptoms. Apparently double vision has often nothing to do with the two eyes, or with the two optic nerves, for sometimes when the patient shuts one eye he still sees double with the other. In one case the patient saw single when the two eyes were opened; when one was shut he saw double. Sometimes they saw single within a certain distance, while they saw the same object double when the object was brought nearer, or farther off. Dr. Tigges mentions a case where the patient saw objects single at a distance of from one to one and a-half feet; objects held nearer were seen double, as also objects farther off; but about four feet distance they appeared threefold, and beyond this the patient could not distinguish anything.

In treating these cases great benefit was derived from the application of the constant current. The stream was directed towards the sympathetics of the neck, or passed through the base of the brain from one to five minutes. Occasionally the application was followed by a prompt cessation of the symptoms, and a cure followed after four or five sittings. Dr. Tigges also tried electricity, with advantage, in cases of giddiness without double vision, and in *tabes dorsalis* with giddiness and double vision. Some of his patients were insane, for the most part affected with *melancholia*; in others the mind was not disordered. Dr. Tigges used Stöhrer's constant battery. He has found by experiments on the dead body that a current directed through the mastoid processes reaches the posterior plane of the medulla oblongata; that when directed a quarter of an inch before and above the border of the ear it reaches the *crura cerebri*; and that directed a quarter of an inch above the middle of the ear it reaches the *corpora mamillaria*.

The paper is interesting, carefully studied, but not so carefully written. It might be made shorter and clearer, and Dr. Tigges' abbreviations of words have cost me much trouble.

2. *American Retrospect.*

By T. W. McDOWALL, M.D., Medical Superintendent of the Northumberland County Asylum, Morpeth.

American Journal of Insanity, Vol. xxix., January and April, 1873, and Vol. xxx., July and October, 1873.

January, 1873. No. III.—“Moral Insanity,” by John Ordronaux, M.D., LL.D., Professor of Medical Jurisprudence in the Law School of Columbia College, New York. “Criminal Responsibility of Epileptics, as illustrated by the Case of David Montgomery,” by M. G. Echeverria, M.D. BIBLIOGRAPHICAL: Reviews, &c.

April, 1873. No. IV.—“Conium in the Treatment of Insanity,” by Daniel H. Kitchen, M.D. “Electricity and Life,” by Fernand Papillon (a translation of an article in “*Le Revue des Deux Mondes*,” August, 1872). “Violence and Unconscious State of Epileptics, in their Relation to Medical Jurisprudence,” by M. G. Echeverria, M.D. “Psychological Retrospect.” BOOK NOTICES. SUMMARY.

July, 1873. Vol. xxx. No. 1.—“On Epileptic Insanity,” by M. G. Echeverria, M.D. “Hysteria in Children Contrasted with Mania,” by Henry Landor, M.D. “Ideal Characters of the Officers of a Hospital for the Insane,” by I. Ray, M.D. “Ergot in the Treatment of Nervous Diseases,” by Daniel H. Kitchen, M.D. BIBLIOGRAPHICAL: Reports. BOOK NOTICES, &c. SUMMARY.

October, 1873. No. 2.—Proceedings of the Association of Medical Superintendents of American Institutions for the Insane. “Nitrite of Amyl in the Treatment of Spasmodic Asthma and Acute Bronchitis,” by Daniel H. Kitchen, M.D. “Insane Criminals in Italy,” by Dr. Biffi, of Milan (from the *Archivio Italiano per le Maladie Nervose*, November, 1872). “Liability of Insurance Companies for Losses by Suicide,” opinion of Justice Hunt. BIBLIOGRAPHICAL: Reports, &c. SUMMARY.

Moral Insanity.

Fortunately it but seldom happens that matters of scientific interest demanding calm and unprejudiced consideration, are discussed in such a violent manner as is the case in this paper by Professor Ordronaux. Without expressing any opinion as to the soundness of his opinions or the value of his arguments, we shall simply give a few extracts from his paper. He says:—

It is due alike to the interests of justice and humanity that the untimely dialectics, born of materialism and swaddled in sciolism, which distort the course of all judicial proceedings involving issues of insanity, should be checked in their tendency to convert equitable into sentimental jurisprudence. The law either is, or is not, a system of perfected rules for human conduct, founded upon principles inherent in our nature, and recognising two cardinal points, round which revolve all thinking beings, viz., *reason* to generate courses of action, and *conscience* to regulate them with reference to accountability here and hereafter.

Reason and conscience both presume freedom in their exercise, without which they cease to be regulating principles. In idiocy, which is the highest expression of mental deficiency, reason and conscience are simply barren sceptres in the hands of their possessors, who are merely bondsmen to the lower incentives of instinct.

The introduction of medicine into jurisprudence is the result of discovering that man's nature is dual, and each part of reciprocal influence in producing his character. This fact is of immemorial acceptance, being repeated in every system of philosophy that has ever flourished, and better still, resting upon daily experience, and so become of universal recognition. . . . In reality, however, medicine has only a collateral and subordinate relation to morals. Our moral nature recognises no physical necessity for its existence. It exists, and is not produced or evolved by any process of organic chemistry acting under the direction of vitality. It anticipates, and rises above all physical connection. In other words it is, like the mind, a special endowment. *It feels—it is conscious.* But matter *per se* does neither. Hence there is no joy and no pain but in the soul. The intellect, we know, is limited in its extent or emphasis of expression by the physical state of the organ through which alone it can act in finite life, while the soul has no such restriction upon it. Thus a man with cerebral congestion may not be able to ponder complex problems, or to express himself eloquently, yet he still knows right from wrong, and would feel indignant at any insult offered him. His mind is not disordered even, but only incapable for the moment of a certain amount of tension, although its faculties may remain unimpaired, just as an exhausted muscle cannot repeat the acts by which it lost its tone, until it has first rested. But the moral nature knows no alterations in rhythm, such as constitute the physical phenomena of periodicity. It craves no rest, because it needs none; it never sleeps voluntarily, but only through the narcotising influences of sin, expressing itself in self-indulgence. The only disease to which the moral nature is subject is SIN. This is the Alpha and Omega of all moral disease, and the key to the problem of moral insanity.

This is practically admitted in the definition given of this psychological paradox, by authors who have written upon it, and whose writings and teachings have imported into the field of rational jurisprudence a metaphysical dogma, involving nothing but logical fallacies for its foundation. It can never be other than blasphemous to assume that God, in condemning sin, did not know the difference between it and disease, and that He could commit the injustice of permitting that very sin to convert itself into a physical disease for the purpose of eluding punishment at His hands, or that of human tribunals. . . .

The foregoing symptoms of moral insanity, as given by Dr. Ray, are all striking delineations of what common sense, enlightened by revelation, would call *depravity*. Yet we are asked to believe that these signs constitute evidence of a form of insanity destroying human responsibility. The very conditions, in fact, which God thundered against, in the law-giving upon the Mount, and which the inspired Prophets, the Fathers of the Church, irrespective of denominational creeds, and learned divines, and authoritative moralists, have all agreed upon as constituting *sin*, the defenders of moral insanity term disease. They thus make it appear that the Decalogue, and all human laws, are unjust, because they visit penalties upon disease, and that in consequence there is no sin, except in minor offences. Under this new gospel, petty larceny is crime, while murder or arson are disease; and the more perfect in lying, stealing, cheating, or murdering a man becomes, the more indubitably is he irresponsible.

Divested of all extraneous conditions, moral insanity, when presented as an extenuation for crime, means simply this, that an individual in the enjoyment of perfect intellectual health, and with no demonstrable obscuration of any mental faculty, may yet be such a moral idiot as not to know right from wrong—not to be able to control himself, and not to be able to be affected, as all other intellectual beings are, by those primary and necessary beliefs which are the seeds of moral obligation. Now, if ever such a human being ever existed, or could exist, he would present the paradoxical character of a man who, while enjoying all the

possibilities of a perfect intellect, had yet no knowledge or conception of his own identity, since identity, as Descartes' proposition long ago established it, is a question of feeling, not of intelligence, and such a man could have no affections or passions, for pure intellect is passionless. Therefore, being unable to distinguish between right and wrong, he could not feel that it was wrong for an individual to injure him in his property, health, reputation, or domestic relations. . . . Now, when real lunatics are carried away by a homicidal impulse, they are not particular or previsual as to what may happen to them.

It is not our province to moralize upon the duties of lawyers to their clients. But in relation to courts, the public have a right to criticise their judgments whenever those judgments are seen to be in plain contravention of sound morality and public safety. It was not a Christian who exclaimed, "What are laws without morals?" but a Roman orator and a heathen; yet one who, in all his innumerable pleadings, and with all his superior excellency in Greek sophistry, never ventured so far as to call sin and depravity by the modern names of disease and moral insanity. And it is noteworthy in this connection, that those cases of moral insanity figuring in the annals of our jurisprudence as precedents have almost invariably occurred in courts whose judges were notoriously inferior to the counsel practising before them; and who, consequently, were overpowered by them, and afraid to cross swords in the field of dialectics or legal criticism. This pitiable spectacle has too often been witnessed to require any description of it at our hands. But, and until public opinion, supported as it may be by the judgment of the best informed scientists, shall repudiate the plea of moral insanity as a gross delusion, born in the bosom of casuistry and nursed in the cradle of ignorance, as mere sophistry in fact for the special convenience of great moral outlaws; until this stronghold of public sentiment, on which the law ultimately rests, shall purge itself of all dalliance with the above pernicious doctrine, we shall continue to see it advance from court to court, spreading like a moral contagion over the land, until murder shall in truth, and not in imagery alone, be converted into one of the fine arts. Then, the only infamy attached to crime will spring from its insignificance, and the only certainty of its impunity will rest upon its enormity. We ask Christian men to ponder well those things before they allow themselves to be deluded by that *ignis fatuus* plea which has no foundation in fact, no limits in application, and may be stretched to such a degree as to destroy every principle of natural equity which binds society as a whole. Nay, more even than this; for if moral insanity and irresponsibility may co-exist with perfect mental health, then God's moral government of the universe becomes impeachable as a despotism; since while it professes to allow men to do as they please, it punishes them if they please to do wrong; and all men being sinners to some degree, and therefore morally insane, ought, under this plea, to become the less responsible in proportion as they are the more sinful.

Mania Transitoria.

We do not consider it necessary to give in detail the remarks of Dr. Ordonaux on this subject. No doubt the plea of mania transitoria has been successful in aiding some undoubted murderers to escape the just punishment of their offences; but this cannot be held as a valid excuse for a man heaping abuse on those who may venture to differ from him. It is advisable that a writer should not burlesque the opinions and statements of his opponents. Many will question the propriety of appealing to religious belief or prejudice for the support of a matter of science. Such a proceeding is fair neither to science nor religion. The days are gone when it was argued that the results of geological investigation must be false because they are at variance with the Biblical account of the creation. It is as unreason-

able to make the Bible a text book of moral philosophy as to use it as a hand book of geology.

Dr. Ordonaux's conclusions are as follows:—

Our objections to the recognition of any such doctrines as those of moral insanity and mania transitoria may be summed up in a few propositions which we believe to be founded in morality and justice; in morality as defining our responsibilities to God; and in justice, as defining His bounty to us, and our duty to our fellow men.

As to *moral insanity*, we object to it because it enslaves man to a physical fate from which he cannot escape, and whose commands he must obey—consequently, being either vicious or virtuous by compulsion, he is worthy neither of praise nor of blame, and, in fact, is only an automaton. In other words, this doctrine denies to man what God has given him as a special right, the liberty of choosing between two courses of conduct, with the power of exercising that choice when in mental health. Mental health is the only test that God or the law apply in determining human responsibility. A man, therefore, has the liberty to be as vicious as he pleases, and we have no right to stigmatize him as insane because he prefers that course of life. It is his prerogative to choose, without which he is no man, and not a responsible agent. "Choose you this day whom ye will serve," is the significant language of the prophet Joshua, uttered no less as an invitation than as a command, but in either case testifying to the liberty of conscience granted by the Creator to all men.

As to *mania transitoria*, we object to it because it is a hypothesis and nothing more, and an assumption not sustained by facts. It borrows the name of a disease, but refuses to bear the features of one, or to submit itself to be tested by the only rules which science recognises as legitimate. Invoking scientific recognition, it denies the conclusions by which science condemns it under the light of experience, and asserts itself as superior to the necessity of logical demonstration. It starts with an assumption, and ends in an assumption, and is only an inference throughout from an unsupported hypothesis. Its tendency being simply to emancipate crime from penal obligation, it is a plea whose admission into court is against scientific truth and public policy, against divine and human justice, and against the sovereignty of man's moral nature.

Lastly, we object to both, because coming from physicians it is an attempt to set back the clock of the century, and to revert to superstition and supernaturalism in medicine. It is an attempt to curtain the windows of that science whose religious duty it is to cast light and not mysticism around disease—to treat it not as a personal devil and an entity to be exorcised by philters and mummeries, but rather as the perversion of a natural state struggling to restore itself to an original equilibrium.

Criminal Responsibility of Epileptics.

The case of David Montgomery has excited much attention in America, and has formed the subject of various papers. The present contribution by Dr. Echeverria is largely devoted to the examination of statements made by Dr. Hammond at Montgomery's trial. Without going into the case, we can give portions of Dr. Hammond's evidence, and we are quite sure that many will strongly dissent from much of what he says. In reply to a question, he stated that "the fact of his (the prisoner's) stopping long enough for reflection would be incompatible with it (the murder) being an act of insanity." The following are the chief statements called in question by Dr. Echeverria:—1. "It by no means follows that an individual suffering

from epilepsy is not as fully responsible for his actions as healthy persons." 2. "Not many cases of epilepsy are accompanied with insanity or obvious mental deterioration. According to his experience 50 per cent. develop mental deterioration, their mind being weakened in some of its parts." 3rd. "Insanity with epilepsy is a very different thing from the insanity which results from epilepsy." 4th. "That patients committing acts of violence during epileptic mania, have apparently no motive unless it is a false one." 5th. "That he (Dr. Hammond) has never known a case of an epileptic fit or seizure where, during the continuation of it, the party will be spoken to, will answer, and then relapse into the same condition, and being spoken to again will answer and relapse again." 6th. "That deliberation takes away the idea of an insane act." 7. "In temporary insanity from cerebral disturbance there is no disposition to resist the impulse; the person yields to it and strikes." 8th. "When an epileptic has suffered from an attack, the mental disturbance continues frequently several days."

In the examination of the several important questions raised in the discussion of the case, copious references are made to the literature bearing on the subject.

Conium in the Treatment of Insanity.

Besides narrating twelve cases of insanity in which the use of conium appears to have acted beneficially, Dr. Kitchen gives the result of some physiological experiments he made with the drug. His conclusions are as follows:—

1. It produces muscular relaxation.
2. Duration in proportion to dose.
3. Physiological effect in proportion to the purity of article used.
4. The brain is not affected directly by conium.
5. Pulse and temperature both reduced after a full dose.
6. A gentle perspiration covers the whole body as soon as the physiological effects are observed.
7. No appreciable effect on any of the secretions.
8. Quietness lasts from two to four hours, and then disappears, leaving only a sense of lessened muscular energy.
9. Conium, not acting on the brain, may safely be given in all febrile diseases.
10. Conium, when applied to the skin, causes slight redness.

The Legal Relations of Epileptics.

In this paper Dr. Echeverria confines his "investigations within the circle of those cases, still obscure and perplexing, of hidden nocturnal epilepsy; or of fits occurring not in an antecedent, but in a subsequent relation to the criminal act of violence; as also to cases where the morbid impulses are developed altogether detached from and independent of any visible fit, springing irresistibly into action out of

the substratum of an unhealthy mind, and really denoting *unconscious cerebration*, derived from a masked or cerebral fit, in which state most of the crimes calling for a medico-legal investigation are perpetrated by epileptics."

His concluding remarks are as follows:—"There are, however, more cogent facts to convince us that the state of cerebral epilepsy, referred to by Drs. Gray and Cook, displays characteristics of its own, which will enable a physician experienced in the phenomena of epilepsy to disclose its existence. In this more than in any other case where the detection of insanity is attempted, the antecedents, as Dumesnil has established it with great propriety, are elements of the utmost importance. The hereditary predisposition, as we may see by the examples here reported, stands prominent in this regard. Truly has Maudsley asserted, that "the hereditary madman often gives the idea of a double being; appeal to his consciousness and he seems rational and nowise deranged, but leave him to his own devices, and his unconscious life appears to get the mastery and to impel him to extravagant or violent acts." The periodicity of the attacks is a phenomenon I look upon as constant in cerebral epilepsy. I have met with no case in which I have failed to trace precisely their previous occurrence after close investigation, or to verify their repetition while the patient was under my immediate care. The mental phenomena of masked or cerebral epilepsy recur with the periodicity peculiar to the other epileptic paroxysms. They are not solitary. They supervene after a more or less prolonged stage of incubation, and, though acknowledging the same source and nature as the other attacks which they substitute, they exhibit, however, a much longer duration, seldom lasting less than a day, and often persisting for two or three. These paroxysms, as already asserted, may equally alternate with those of *petit mal* or *grand mal*, just as these latter may exist combined. Cerebral epilepsy, nevertheless, ordinarily constitutes by itself the epileptic malady, of which it implies an advanced stage. Its supervention is evinced by other signs besides extreme susceptibility and impulsive actions, and it is not rare to find it associated with religious monomania and erotomania. The volubility and instantaneous changes usually attending this state may be sometimes replaced by an opposite condition of complete immobility and silence, the epileptic remaining for hours motionless, with a sullen expression of countenance, and even involuntarily passing his urine or excrements, like those with stupidity or melancholia attonita. I have observed this condition to the extreme of verging almost in catalepsy. Giddiness becomes also a symptom of this state, with more or less profuse perspiration of the head. In three instances epistaxis has supervened during or immediately after the attack, and in clear connection with it. In the majority of cases I have personally observed the existence of hallucinations and delusions of a distressing character which prompted the patients to acts of violence. Hallucinations of hearing have been the most frequently de-

ted; they further appear particularly noticeable in the cases here quoted from Laurent and Gray, as also in many of those recorded by Brierre de Boismont and other authors.

The physiognomy of a patient with cerebral epilepsy bears in a high degree the heavy lost look and unmistakeable stamp with which epilepsy stamps its victims. The bloated and livid appearance, with the slight quivering of the face, the tremor of the limbs, and the moral perversion which springs out of the malady and leads to shameless vicious habits, or intemperance, account for the frequent arrest and punishment, like drunkards, of individuals suffering at the time from cerebral epilepsy. The quick recovery from their fit of unconsciousness strongly countenances such mistake. I have on many occasions had under my care patients supposed to be labouring under delirium tremens, or alcoholic insanity, who, after attentive inquiry, proved to be inveterate epileptics, arrested in a state of cerebral epilepsy.

Another phenomenon observed pretty regularly during the paroxysms of marked epilepsy, is a propensity of the patient to repeat one same phrase, and especially the words addressed to him. This echo sign, regarded by Romberg as symptomatic of cerebral softening, appears to me in these instances mainly indicative of a perverted will. I have noticed it with a remarkable constancy, and we see it distinctly recorded in the case of Røgiers, previously cited.

The inception of cerebral epilepsy, when its signs are not well marked, may pass unrecognised by an inexperienced observer; but the transition from the paroxysm to a natural state of mind, so far as my observation goes, is always effected after a period of sleep, that seems required by the brain to recuperate from the shock caused by the malady. This is a point on which I have before insisted, when examining into Montgomery's case, and to which may attach a great medico-legal value. This sleep may be prolonged several hours. I have observed it often accompanied by heavy breathing, or snoring, which makes it easily mistaken for the sleep of drunkenness. The case from Brierre de Boismont, and that of Bisgrove, in 1869, who, after dashing out the brains of his victim, laid down and went to sleep by him, are striking illustrations of the fact now pointed out, in addition to other instances that might be presented from the reports of other authors.

The state of unconsciousness I have tried to describe belongs properly to that form of intellectual *petit mal* so faithfully delineated by Falret. Indeed, it is actually one of its important phases, left unnoticed by the eminent French alienist, and by referring to the well-known description given by Falret, the correctness of this statement may be verified. Nor should the deceitful form of cerebral epilepsy, which I have thus deemed worthy of separate consideration, be confounded with the entire transformation of character that may result after one single fit, as in the case mentioned by Maudsley, or the

special moral and intellectual dispositions which characterise epilepsy. These latter we know to be justly declared by Baillarger as marks which, without constituting a state of insanity, nevertheless place epileptics beyond the common rule, and if not sufficient to render them unaccountable for all actions, extenuate at least their legal responsibility."

Ergot in Nervous Diseases.

The chief results obtained by Dr. Kitchen are the following :—

1. Benefit of combination with bromide of potassium in epilepsy.
2. It is apt to produce cramps and pain in the stomach, which is remedied by combination with conium.
3. In nervous diseases it soothes all renal irritation and catarrh of the bladder.
4. It dilates the pupil sufficiently to be noticed.
5. Increases both frequency and tension of the pulse.
6. Has no appreciable effect on the heat of the body.
7. In large doses it produces the same effect as conium, by inducing sleep.
8. Its beneficial action in delirium tremens after bromide of potassium has failed.
9. It combines readily, in form of pill, with sulphate of quinine.
10. It is a cerebral sedative.
11. Ergotine possesses an advantage over the alcoholic extract in not producing any pain or cramp in the stomach, and is given in smaller quantity.
12. Ergot is not likely to be adulterated, and we always secure an appreciable effect after its administration.

Pathologists in American Asylums.

It is very satisfactory to find that, as in at least one asylum in this country, in America special officers are attached to the medical staff of some of the asylums for the prosecution of pathological investigations. Dr. Webb, of the Ohio Asylum, lays the matter before his committee in the following manner :—

"It is not alone requisite that we may be able to report our duty performed to the living, but an equally important one demands that whatever facts we may draw from the dead, of benefit to the living, be noted. We have long felt the necessity of such an addition to our staff. The demands of science on an institution of this kind are of such a nature, that without the assistance of a competent pathologist it is impossible to meet them. A *post mortem*, without the use of a microscope and various other appliances, is of but little value, and the intelligent use of the same requires constant and laborious practice. So many and varied are the duties of a pathologist it is of itself a specialty, and he that imagines the possibility of combining all branches of our calling in one person, demonstrates his ignorance of

the status of the profession. My friend Dr. Gray, of the New York State Lunatic Asylum, at Utica, made a similar request of the Legislature of his State, which was promptly complied with. I would suggest to your board that such inducements be offered in the way of compensation, &c., as would induce those of large experience in this special department to seek the position. 'Whatever is worth doing at all is worth doing well.' The additional expense incurred in adopting these suggestions would be utterly insignificant in comparison to the benefits derived therefrom."

On the Bromides and Oxygen Gas.

In his report, Dr. Van Deusen records his experience of these agents. He says—

"Since their introduction, a few years since, the bromides of potassium and ammonium have been quite generally used in epilepsy and maniacal excitement accompanying hyperæmia or dependent upon reflex irritation. It may not, however, be inappropriate to refer to some of the symptoms which may result from a prolonged administration of these remedies. Those patients who have taken the bromides continually for several weeks or months soon begin to exhibit a marked degree of mental hebetude or torpor. Associated with this is a feeling of lassitude and muscular weakness. A slight exertion produces unusual fatigue, and all movements are executed feebly, and without energy. Subsequently a marked loss of flesh and deterioration of the quality of the blood are apparent. Finally, nerve-nutrition is interfered with, wasting of the muscular system is noticeable, and a condition of *anæsthesia* or paralysis is developed. Prior to this unfortunate result, the bromization of the individual is shown by the presence of a cutaneous eruption, a fetid breath, and irritation of the fauces. In the experience of the Institution, it has never been deemed advisable, in cases of ordinary maniacal excitement, to pursue the administration of these remedies until the nutrition of the body became thus impaired. As soon as symptoms of lassitude, bodily emaciation, and sluggishness of the mental faculties are apparent, their use is discontinued. In epilepsy, however, it is frequently desirable to continue the administration for prolonged periods to prevent the recurrence of epileptic paroxysms. In these cases the bromides are given in connection with tonics and blood restoratives, and a nutritious diet of easily assimilated articles of food.

During the past year pure oxygen gas has been administered in two cases with most gratifying results. Our attention was first specially directed to its use by Dr. Connor, of Detroit, in an interview with Dr. Emmerson, who has charge of the male department of the Institution. It may be stated, that in neither of the cases referred to was it administered with a view to curative action, but simply to relieve suffering.

The first case was that of a female, in the last stages of pulmonary tuberculosis. She was emaciated, had no appetite, and suffered so

much distress in respiration as to be almost wholly deprived of sleep. At the time the gas was first administered death was hourly expected ; still its effect was immediate and very satisfactory. The previous lividity of countenance gave place to a warm flush, her pulse became stronger, and she soon dropped off into a more natural and refreshing sleep than she had enjoyed for weeks. Subsequent inhalations were followed by equally gratifying results. The feeling of impending suffocation, which had caused her so much distress, was each time promptly relieved, and a quiet and refreshing sleep of usually an hour's duration was induced. Indeed, so great was the relief afforded, that she would ask for the inhaler whenever dyspnœa occurred. Her appetite returned, and not only was life prolonged, but her last days were rendered comparatively free from suffering.

In the second case, that of a young man also in an advanced stage of pulmonary consumption, relief as speedy and complete followed the administration of the gas, at intervals of from half an hour to two hours, or whenever dyspnœa became oppressive. Life, in this instance, was unquestionably prolonged. In both cases, the prompt and efficient relief afforded by the administration of the oxygen was so gratifying that it has been deemed well to present this brief notice of its use."

Insanity among Negroes.

At the annual meeting of the American Psychological Association several members made observations on this subject.

Dr. Green, of the State Lunatic Asylum of Georgia, stated:—I noticed a statement about a year ago that arrangements had been inaugurated (I think in Ohio), somewhere about four years back, for the accommodation of the coloured insane, which was announced as being the first effort to provide for this unfortunate class of people. I think it was in the Southern States that this provision was first made. As far back as 1851, Gov. Cobb and myself had frequent interviews in regard to the necessity of providing for the coloured insane in the State of Georgia at that time. We finally decided upon a plan likely to be acceptable to the Legislature and people, and to aid him, I addressed a circular letter to some one of the county officers in every county in the State, requesting that they would give me reliable information of the number of insane negroes in their respective counties, not embracing in such statement the congenital idiots, or those subject to fits, but to give the number of insane only, and I ascertained in that way that at that time there were but forty insane negroes in the State of Georgia, with a negro population of over 400,000. I took great pains to secure the reliability of these statements. The result may, to some extent, have been different from the real fact, owing to the difficulty of some ignorant persons to determine who were insane. The liability to call all insane people "fools," and all idiots "insane," was more likely to increase than diminish the

number. I had reason to believe the statements correct. I subsequently came north for the purpose of making a general tour in the northern and north-western States, and was astonished at the comparatively greater number of those people found in the institutions I visited. I was born in Beaufort, S.C., and lived in Georgia since a year and a half old; was then in my forty-eighth year, and I had never seen half-a-dozen insane negroes, and was therefore surprised at the number I met with in my town. I submitted my opinions as to probable reasons for this difference to gentlemen in charge of the large pauper establishments in which I found them, and they did not hesitate to admit the probable correctness of those views. The influences then operating in that section of the country tending to such results are now rife with us. When those people were in a state of slavery they were taken care of and were not permitted to run into every possible excess, to remain up all night to drink and carouse, &c. When they were sick they had proper medical attendance and nursing. They, as a class, were most assuredly not subject to such privations as were calculated to impair their health. Then the better class had no cares or anxieties about anything. If a negro man had a sickly, feeble wife, and house full of little children, unable to perform any labour for their support, he did not lie down at night in care and anxiety at the prospect of their suffering in case of accident to himself. His prospects of recovery, in case of sickness, were not impaired by such influences. Now all this is reversed, and furnishes reasons, very satisfactory to my mind, for the manifest increase of insanity among the coloured people. I have now under my care a hundred of them, and I do not suppose I have half the number that are in the State. The project of Gov. Cobb and myself for providing for them in 1851 was never carried into effect. The Legislature did not then deem it necessary; the number was so small, and their owners were by law bound to take care of them. In 1865, after the emancipation of the negroes, and their being thrown upon their own resources, the people who owned them, and who were now unable or disinclined to support them, were making numerous applications for their admission to the asylum; and in two or three cases they were put down upon the premises, and clandestinely left there.

Dr. R. S. Steuart said—Forty-five years ago there were but few Africans or their descendants belonging to Maryland who became insane. Of this race many more were idiotic in proportion to their own number, and greatly more so in relative proportion to the white race. Such cases as have occurred have been admitted into this hospital on equal terms with all others. But this number has rapidly increased since the blacks have become free, so rapidly that it is now a question in Maryland how to dispose of them. There are probably 300,000 of the African race in Maryland, and it is almost certain, from the present condition of this population, that special provision will have to be made for it; and there is no doubt that in due time

they will be carefully provided for in accordance with the best views of this Association.

Dr. Stribling said—In my report to the Legislature of Virginia, for the years 1844, 1845, and 1848, I urged that suitable provision be made for insane coloured persons, and gave it as my decided opinion that the interest of both classes required that such provision be entirely distinct and separate from institutions designed for whites; or that if from considerations of economy it be deemed desirable to place the two classes under the same board of directors, and the supervision and treatment of the same medical officers, the building and the airing courts should, at least, be so located and constructed as that there could be no association between the whites and coloured. At that day there were but few free blacks in Virginia; between the slaves and the uneducated white labourer there existed a mutual prejudice. The former assumed an aristocratic bearing, because of their masters' supposed wealth, and professed to look upon the latter as their inferiors, designating them as "poor white folk;" whilst in turn these cherished towards them a resentful, and sometimes bitter spirit. It was believed that such antipathy, existing when in health, would be aggravated by the morbid state of feeling so frequently accompanying insanity, and consequently lead to altercations and acts of violence. Insane coloured persons were never admitted into the Institution with which I am connected, but my friend Dr. Galt (now deceased) construed the law as requiring, or at least authorising, it, and received them into the Eastern Lunatic Asylum, at Williamsburg. If I mistake not, Dr. Brown, the present Superintendent of that Institution, found there about forty such, all of whom were not long since transferred to the Asylum established solely for blacks, at Richmond. I regret having to state in this connection that, in my opinion, insanity is greatly on the increase with the coloured population of Virginia; nor does this surprise me.

Those whose wants had in childhood, manhood, and old age, been considerably supplied by their owners—who when sick had received prompt and skilful medical attention, and were kindly nursed—were suddenly thrown upon their own resources for food and raiment, and when sick had no one to care for them.

As a general rule they are thriftless, and such as receive good wages for their labour often squander their money, "taking no thought for the morrow." Poverty, intemperance, exposure, absence of all comforts, and of the necessaries of life, followed by ill health and mental derangement, are often the result.

Prior to universal emancipation, there was at no time more than about forty coloured insane in the Eastern Lunatic Asylum; now there are in the Asylum at Richmond more than two hundred, and it is believed that, including these, there are not less than five hundred in the commonwealth.

(To be continued.)

PART IV.—NOTES AND NEWS.

FERRIER'S FURTHER RESEARCHES ON THE BRAIN.

In a paper read before the Royal Society on March 5, Dr. Ferrier gave the results of an experimental investigation, tending to prove that there is a localisation of function in special regions of the cerebral hemispheres.

In a former paper published by the author in the "West Riding Lunatic Asylum Medical Reports," vol. iii., 1873, the results were given of experiments on rabbits, cats, and dogs, made specially for the purpose of testing the theory of Dr. Hughlings Jackson, that localised and unilateral epilepsies are caused by irritation or "discharging lesions" of the grey matter of the hemispheres in the region of the corpus striatum. Besides confirming Hughlings Jackson's views, the author's researches indicated an exact localisation in the hemispheres of centres or regions for the carrying out of simple and complex muscular movements of a definite character, and described by him as of a purposive or expressional nature.

Facts are also recorded tending to show that other regions of the brain were connected with sensory perception, but no localisation was definitely arrived at.

Among the experiments now related are some in further confirmation and extension of those already made on cats, dogs, and rabbits, as well as a new series of experiments on other vertebrates. In particular, numerous experiments on monkeys are described, for the purpose of which the author received a grant of money from the Council of the Royal Society. In addition, the results of experiments on jackals, guinea-pigs, rats, pigeons, frogs, toads, and fishes are narrated.

The method of investigation consists in the application of the stimulus of an induced current of electricity directly to the surface of the brain in animals rendered only partially insensible during the process of exploration complete anaesthesia annihilating all reaction. It is supplemented by the method of localised destructive lesions of the hemispheres.

Special attention is called to the precision with which a given result follows stimulation of a definite area; so much so, that, when once the brain has been accurately mapped out, the experimenter can predict with certainty the result of stimulation of a given region or centre. The theory that the phenomena are due not to excitation of cortical centres, but to conduction of the electric currents to basal ganglia and motor tracts, is considered as disposed of by the fact of the precision and predictable characters of the results, and by the marked differences in the phenomena which are observed when regions in close local relation to each other are excited. Other facts are pointed out, bearing in the same direction; among others, the harmony and homology subsisting between the results of experiments in all the different animals.

The experiments on monkeys are first described.

Reference is made in the description to the figures of the brain, on which are delineated the position and extent of the regions, stimulation of which is followed by constant and definite results.

Generally it may be stated that the centres for the movements of the limbs are situated in the convolutions bounding the fissure of Rolando, viz., the ascending parietal convolution with its postero-parietal termination as far back as the parieto-occipital fissure, the ascending frontal, and posterior termination of the superior frontal convolution. Centres for individual movements of the limbs, hands, and feet are differentiated in these convolutions.

Further, in the ascending frontal convolution, on a level with the posterior termination of the middle frontal, are centres for certain facial muscles, *e.g.*, the zygomatic, &c. At the posterior termination of the inferior frontal convolution and corresponding part of the ascending frontal are the centres for various movements of the mouth and tongue. This is the homologue of "Broca's

convolution." At the inferior angle of the intraparietal sulcus is the centre for the platysma.

In the superior frontal convolution, in advance of the centre for certain forward movements of the arm, as well as in the corresponding part of the middle frontal convolution, are areas, stimulation of which causes lateral (crossed) movements of the head and eyes, and dilation of the pupils.

The antero-frontal region, with the inferior frontal and orbital convolutions, give no definite results on irritation. Extirpation of these parts causes a condition resembling dementia.

No results could be ascertained as regards the function of the central lobe or Island of Reil.

Irritation of the angular gyrus (*pli courbe*) causes certain movements of the eyeballs and pupils. Destruction of this convolution gives data for regarding it as the cerebral expansion of the optic nerve, and as such, the seat of visual perception.

The phenomena resulting from irritation of the superior temporo-sphenoidal convolution (pricking of the ear, &c.) are indications of excitation of ideas of sound. It is regarded as the cerebral termination of the auditory nerve. The sense of smell is localised in the uncinate convolution. The situation of the regions connected with sensations of taste and touch is not accurately defined, but some facts are given indicating their probable locality.

The occipital lobes do not react on stimulation. Destruction of these lobes caused no loss of sensation or voluntary motion, but an apparent abolition of the instincts of self-preservation.

The corpora striata are shown to be motor in function, and the optic thalami sensory.

Stimulation of the corpora quadrigemina causes dilatation of the pupils, opisthotonic contractions; and the utterance of peculiar cries when the *testes* alone are irritated. The nature and signification of these phenomena are regarded as still obscure, and requiring further investigation.

Some experiments have been made on the cerebellum of monkeys. They confirm the author's previous views as to the relation of this organ to co-ordination of the optic axes, and the maintenance of bodily equilibrium. The experiments are not detailed, as they will form the subject of a future paper.

New experiments on dogs essentially confirm those already published, while many new facts have been elicited. Those on jackals agree in the main with the experiments on dogs, both as to the character of the results and the localisation of the centres. New experiments on cats generally confirm, as well as further define, the results described by the author in his former paper. The facts of experiments on rabbits, guinea-pigs, and rats are essentially alike, and also confirm former statements.

In all those animals, the sensory regions are defined, and their position compared with those in the brain of the monkey.

The only result obtained by the stimulation of the cerebral hemispheres in pigeons was contraction of the pupil. The region associated with this action, situated in the postero-parietal aspect, is compared with a similar region in the mammalian brain, and regarded as the seat of visual perception.

Movements of the limbs in frogs, and of the tail and fins in fishes (as in swimming), can be excited from the cerebral hemispheres in these animals. Exact localisation of motor and sensory centres is not possible.

The optic lobes in birds, frogs, and fishes, seem related to movements of flight and progression, in addition to their relation with the eyes. Similar phenomena result from irritation of the cerebellum, but the signification of these is reserved for future inquiry.

From the data of physiological experiment, a foundation is obtained for the constructing an anatomical homology of the convolutions.

Among other points in homology the fissure of Rolando is shown to be the homologue of the crucial sulcus in the brain of the carnivora.

The whole brain is considered as divided into a sensory and a motor region, corresponding to their anatomical relation to the optic thalami and corpora striata, and the sensory and motor tracts.

The motor regions are regarded as essential for the execution of voluntary movements, and as the seat of a corresponding motor memory (motor ideas), the sensory regions being looked upon as the organic seat of ideas derived from sensory impressions. An explanation is attempted of the phenomena of aphasia, and the relation of the memory of words to the ideas they represent.

The theory that a certain action, excited by stimulation of a certain centre, is the result of a mental conception, is considered and disputed. From the complexity of mental phenomena, and the participation in them of both motor and sensory substrata, any system of localisation of mental faculties which does not take both factors into account, must be radically false. A scientific phrenology is regarded as possible.

The paper concludes with a short consideration of the relation of the basal ganglia to the hemispheres. The view is adopted that they constitute a sub-voluntary or automatic sensori-motor mechanism.—*London Medical Record*, March 18th.

THE MECHANISM OF THE BRAIN.

From the "English Mechanic" for March 13th we obtain the following:—

"Several researches have recently been published, which seem to prove the excitability of the cerebral hemispheres, contrary to the opinion generally held by physiologists. In two communications recently made to the Paris Society of Biology by M. Carville and M. Dupuy respectively, it is sought to prove that the experimenters who have advanced this new theory are in error. Both show (by different methods) that weak induced currents are capable of diffusion to a distance in the cerebral substance. According to them, the movements produced must be the result of excitation from a distance of parts deeper and distinct from those to which the electrodes are applied. The effects produced by faradisation which penetrate to the *corpora striata* and the peduncles, arise from direct excitation of these organs, and cannot be attributed to a reflex action. M. Dupuy further seeks to show that one cannot localise, in such a cerebral convolution (as Prof. Ferrier supposes), the nutritive or functional centre of such and such a nerve-conductor; for when the animal is completely anæsthetised, electrical irritation of the cortical layers no longer gives rise to contractions, whereas in the same animal and with the same electric current, direct irritation of a fibre of the sciatic nerve previously laid bare causes contraction of the muscles to which it is distributed. As to Nothnagel and Fourniè's method of intra-cerebral injections of a corrosive liquid, M. Dupuy thinks the excitation is not so limited as the authors suppose. The question of excitability or non-excitability of the cerebral hemispheres is thus still a disputed one."

The same number also contains an abstract of a popular lecture by Dr. Brown-Séquard, copied from the "New York Tribune," on "The Mechanism and the Seat in the Brain of the Volitional, Sensorial, and Mental Phenomena." Dr. Brown-Séquard said that the system can be looked upon as composed of two essential elements—cells, that is, small bladders, and fibrous tubes. These cells exist in almost every part of the brain, as well as in the continuation of it called the spinal cord, and it can be seen that there are an immense number of ramifications which most likely are in all in continuous fibres. We may look upon the system as a contiguous network of fibres, so that no part of it is disconnected, and this is to be kept in view in the consideration of the various means by which propagation takes place from one part of the nervous system to another. Those two modes of action take place through cells as well as through fibres, and both of them consist in what we call irritation. Every part of the nervous system can be a point from which proceeds an irritation which will either stop an activity of the brain or put it in play. The brain itself has the power, as well as the nerves, of acting upon itself, and producing or causing a cessation of activity. If you inject water in your ear you discover that a disorder of movements comes almost at once. There is an effect on certain parts of the brain exerted by nerves in the mucous membrane in the tubes of the ear.

The greatest variety of phenomena may come either from irritation of the brain or nerves. In one case in London a boy was found, on getting out of bed in the morning, to be seized with the most violent convulsions, and an acute attack of mania. On putting him to bed again the morbid symptoms disappeared. Three times this phenomenon was observed, and when the surgeon examined him, the boy told him that while fishing a piece of glass had penetrated beneath the nail of his great toe. By pressing on the skin near the nail the boy had a recurrence of the same symptoms, but after the surgeon had cut away a piece of the flesh the convulsions ceased. It may be seen by this that an irritation in a very minute part of the body may have an immense power. It has been discovered that the irritation of portions of certain muscles of the eye can produce in the brain a condition called catalepsy, or loss of feeling. When we see that a man's thigh may be amputated without any sense of feeling on his part, when we see that irritation may be exerted on the brain by means of irritation of a few fibres of a muscle of the eye, we can understand how immense is the field of important researches, both in a psychological and physiological and also in a therapeutical point of view. There are facts extremely important concerning the kind of influence of the irritation by means of which activity is arrested in the nervous system. We know that respiration can be stopped immediately by the galvanisation of a particular nerve, and so, also, by an act of the will. In reference to the power of the will, I recollect a surgeon who was accustomed, on going into a hospital, to say to the patients that if any man coughed while he was there he would get no food during the day, and the coughing would always cease. We can stop sneezing by pressing on certain parts of the face, and coughing is under the same mechanism. The future of medicine lies very much in the study of those facts in regard to the arrest of activity.

Our consciousness, as you know, ceases during sleep. It is now well-nigh proved that it is through an arrest of activity. Sleep does not appear through a mere cessation of activity, but it is through something active that sleep is caused. The idea that sleep depends on the contraction of the blood-vessels of the brain, which has been put forward in England and here, is absolutely false; for it has been shown, on the contrary, that when they are dilated sleep can take place as well as before. Convulsions can also be stopped, for they are a morbid phenomena due to a certain condition of the cells. A negro, whose master had convulsions through an affection of the spinal cord, which lasted five or six minutes at a time, so that he could not be dressed, made the observation one day that by pressing on the big toe the convulsions ceased; so that afterwards, whenever he dressed him, he simply performed this act and kept his master still.

In a case published by Abercrombie, which is very important as showing that the disease must have existed a long time before death, a lady—who had had previously some trouble with her sight, and had had attacks resembling certain forms of epilepsy, but was at this time apparently in good health—passed the evening with her friends and appeared in excellent spirits, but the same night died. The left side of her brain was found so diseased as to establish the fact that the disease had existed for a long time. Thus, with this lady, one side of her brain had performed all the functions that are usually attributed to that an. We sometimes find that the reverse is true—that a very slight irritation may cause intense symptoms, and produce the greatest variety of them, while for a considerable disease we see slight indications. We find, thus, that there is no relation between the symptoms and the seat of the disease itself. There are cases showing that diseases in the brain can disappear through what might cause disease of the brain, as in the case of a lunatic who was accidentally cured by getting his cranium broken from the blow of another lunatic. We must admit that the two sides of the brain are completely alike in their functions, and that one of the two alone is entirely sufficient to perform the functions attributed to both. I can show you that the present mode of education develops only one half the brain. It is a very great mistake we commit in not teaching our children to make use of the two sides of the body indifferently. We write with one hand; we should learn to use both. We make use of one side of the body for a great many things, especially in gestures. It is a great pity, because in

developing certain sides of the body we develop certain sides of the brain, and it would be a great gain if we had two brains to work with. In that case we would not then be deprived of the power of speech through disease of the brain, for we could use the unaffected side. It is just so with the body.

The theory has been received almost universally for a long time, and is yet admitted, that the mind, when acting to produce a voluntary movement, performs just the same thing that the pianist does on the piano in making his fingers run on the keys; that in the same way, by striking certain fibres of the brain, the will produces the voluntary movements. It is considered also that the mind, as the recipient of sensations, is very much like a hotel-keeper, who knows, when a bell is struck, what room the disturbance comes from. There is no such prolongation of the fibres from the muscles all over the body to the brain. Two facts, I think, show it; one consists in showing that the number of fibres by which the brain communicates with the body is so extremely small compared with the number of movements we can perform: in the same way the variety of sensations implies an immense number of them, and there is no possibility of such a number of them existing in the upper part of the spinal cord. Another argument is that there are many cases on record by which the bond of union between the spinal cord and the rest of the body was in a great measure destroyed—one-tenth of it existing in some cases—and still the movements were performed more or less completely, and the sensations were transmitted to the sensorium almost as perfectly as in health; so that a very few fibres uniting the brain with the spinal cord are sufficient for communication between the brain and the body.

A startling fact was discovered in Paris a long time ago, that one part of the left side of the brain seems to be the seat of the faculty of expressing ideas by speech. I believe it does not belong to that part. I would not say that a person who is educated to employ indifferently both sides of the body would thereby develop both sides of the brain as regards the mental power, but that is very likely to be the case. The faculty of sight seems to have a better proof of a seat in the brain than the faculty of speech. There are two organs in connection with the optic nerve. The greatest variety of effect may be produced by irritation of any one part of the optic bands, as they are called, and there is no conclusion to be drawn from those facts but this: that an irritation existing in one half of the brain at the place where one of the optic nerves penetrated, a disease there, can either produce the loss of sight in one eye or the other eye, or both eyes, or one-half of either eye or each eye; and still more are cases showing that a disease in that place may not produce any alteration at all in the sight; and the conclusion is that disease in one half of the brain is not necessarily the cause of the loss of sight, and that one nerve only is enough for the sight of two eyes. This is in perfect harmony with the theory that one-half the brain is good for all the functions of two sides of the brain.

It has been considered that certain parts of the brain have the power of acting upon certain parts of the body. This localisation is the greatest attempt at demonstration of the view of certain physiologists that has yet been made. My assistant and pupil has just published in France a system of researches establishing that the means employed by Ferrier were quite inapplicable and trustworthy. Ferrier applied galvanism, and paid no attention to the fact, that the current was distributed over other parts than those he wished to be acted upon, so that there were a great variety of effects of the nerves of the base of the brain. The base of the brain certainly has a great variety of action over certain muscles, but the seat of the will has not that power. The conclusion of Ferrier's theory is just the same as though he had said that the seat of the will was in the soles of the feet, because by tickling them the muscles of the face were affected. The immense field of clinical medicine disproves entirely the theory. So with other localisations. A French physiologist thought he had discovered the seat of vital force in the *medulla oblongata*, but I have had a good many animals deprived of that, and yet they have lived.

The speaker next spoke of the connection between the mind and the body as

regards voluntary action and sensation. What can be done in certain cases by the nervous system without any influence of the will is sometimes immense. The will simply states that a particular movement is to be done; the act of performance does not in the least belong to the will. The mechanism by which the performance takes place is rather complicated, but the facts show that Nature in that respect has been exceedingly provident, providing 1,000 fibres where one would be sufficient.

MEDICAL STATISTICS OF THE CENSUS.

(From the "Medical Record" for March 11, 1874.)

The following highly valuable and important particulars with regard to the idiots or imbeciles in Great Britain are extracted from the final report of the Census Commissioners, which have just been issued:—

Idiots or Imbeciles.—In conformity with the terms of the Census Act, an attempt has been made for the first time to ascertain the number of idiots or imbeciles amongst the population of England and Wales. This has been done by means of an instruction in the householder's schedules, requiring that if any person therein mentioned were suffering from or under the infirmity of idiocy or imbecility they should be so described. According to the returns, the total number of persons described as idiots or imbeciles in England and Wales is 29,452, the equality of the sexes being remarkable—namely, 14,728 males and 14,724 females. Compared with the entire population the ratio is one idiot or imbecile in 771 persons, or 13 per 10,000 persons living. Whether the returns are defective owing to the natural sensitiveness of persons who would desire to conceal the fact of idiocy in their families, we have no means of knowing; but such a feeling is no doubt likely to exist among those who look upon mental infirmity as humiliating rather than as one of the many physical evils which afflict humanity. As regards the distribution of idiots and imbeciles, the largest proportionate numbers are in the South Eastern Division, which includes the Earlswood Asylum and other institutions containing persons of this class. The numbers are also above the average, in proportion to the general population in the South-Midland, Eastern, South-Western, and West-Midland Divisions, and below the average of England in the London, Northern, York, and North-Western Divisions.

The ratio of idiots or imbeciles to the population in the several divisions was as follows:—London, one in 1,708; South-Eastern, one in 518; South-Midland, one in 641; Eastern, one in 636; South-Western, one in 669; West-Midland, one in 642; North-Midland, one in 666; North-Western, one in 833; Yorkshire, one in 901; Northern, one in 1,028; Wales, one in 739; England and Wales, one in 771.

Idiots and imbeciles seem to be the last class which has obtained the attention of philanthropists and men of science. Less has been done for them than for lunatics, partly because they are a less dangerous and troublesome class, but partly also from the doubt which existed as to the possibility of effecting a cure, or even any material alleviation of their condition. But attention has now been directed to them, and in consequence of the observation and experience of the last twenty-five years it has been ascertained that in a large proportion of cases of congenital mental infirmity, a patient may, by care and training, be made able to contribute, at least in part, to his own support. This and other important results have been accomplished by means of the special institutions established for these unfortunate persons.

At the time of the census there were 3,456 imbeciles—1,998 males and 1,458 females—in special asylums for this class, or in lunatic asylums. This is in the proportion of one in 8.5 of the whole number. In the South Eastern Division the proportion in asylums was one in three; in the Welsh division, one in eight; in the West Midland and North-Midland divisions, about one in nine; while in London only one in sixteen, and in the North Western and Northern divisions

about one in seventeen were in asylums. Those not in asylums were chiefly in workhouses, which contained 7,976 imbeciles, of which 3,548 were males and 4,428 females.

A valuable institution for the benefit of this class, the Asylum for Idiots at Earlswood, Redhill, Surrey, was instituted in 1847, and incorporated by Royal Charter in 1862. This important establishment contained 510 inmates—342 males and 168 females—at the date of the census. During the year 1872 the average number of inmates was 553. The most beneficial results have followed the efforts made on behalf of these comparatively helpless persons, a large number of whom are usefully employed. As the institution has no funded property whatever, the large sum of £16,000 has to be raised annually by voluntary contributions for maintaining its successful operation.

Two important institutions, situated respectively at Caterham, in Surrey, and Leavesden, near Watford, Herts. have been established under the managers of the Metropolitan Asylum District, for the reception of harmless chronic lunatics and imbeciles chargeable to the several unions and parishes of the metropolis. These buildings were opened in 1870, and were soon fully occupied by the transfer of the imbecile and lunatic paupers from the workhouses in which they were previously maintained, or from the county lunatic asylums to which they had been removed. At the date of the census there were in the Caterham Asylum 511 male and 755 female patients—total, 1,266; and in the Leavesden Asylum 716 male and 875 female inmates, making a total of 1,591. In these asylums, as at Earlswood, measures are taken for supplying opportunities of employment and of recreation to the patients.

	Total of Idiots and Imbeciles.		Males.		Females.
Under 5 years	428	.....	210	.....	218
5 and under 20.....	7,447	.....	4,196	.....	3,251
20 and under 60.....	17,435	.....	8,512	.....	8,923
60 and upwards... ..	4,142	.....	1,810	.....	2,332
	<u>29,452</u>		<u>14,728</u>		<u>14,724</u>

From the tables showing the ages of persons labouring under defect of brain power, it appears that relatively to the general population of the respective ages, the ratio per 1000 is 1·6 between the ages of twenty and sixty, and 2·4 at sixty and upwards.

To the age of thirty the males preponderate; after that age there is a considerable excess of the other sex.

The principal causes of idiocy and imbecility are spoken of by those who have studied the subject as distinctly recognised; they are connected with physical or mental weakness, or with abnormal conditions, either the fault or the misfortune of the parents. Residence in deep valleys, damp and unwholesome climate, crowded dwellings, or other unhealthy conditions, intermarriages among a limited number of families, and more especially where weakness of brain already exists, these are allowed to be predisposing causes; and as they are obviously within human control, the hope may be entertained that the extent of this affliction may be limited in the future.

CASE OF OSTEOMALACIA WITH ACUTE MANIA.

In the St. George's Hospital Reports for 1873 there is an interesting case recorded by Dr. F. W. Moore of osteomalacia associated with acute mania, tending to confirm the observation made by one of the writers in the Sussex Asylum Report for 1872 that there is probably a connection between brain disorder and bone degeneration.

"E. O. was admitted to the Asylum (Hanwell) on the 6th June, 1863, labouring under acute mania; as nearly as could be ascertained she was then seventy years old. Two years previously to this date she broke her leg, and was treated at the London Hospital, which she left recovered. A cousin, who visited her

shortly after admission to the Asylum, deposed that since the accident the patient had never 'been herself' mentally; she could not work, became abusive, violent, and destructive, tearing down curtains, and smashing furniture. . . . When admitted she had delusions that her food was poisoned, that devils were in the room, and that she was then in the abode of witchcraft. There was no hereditary history. . . . Since admission no maniacal symptoms are recorded; she was quiet and well behaved, though somewhat demented and inclined to religious melancholia."

She sustained fracture of both thigh bones in January, 1867, and of the arm in June, 1872, but this was thought to be the giving way of a previously united fracture.

The average quantity of urine passed was about $1\frac{3}{4}$ pint in the twenty-four hours; 100 c.c. contained nearly 1 gramme of trihydric phosphate ($H_3 PO_4$), no excess of lime, and the absence was especially noted of the albuminoid substance described by Dr. Bence Jones under the name of dentoxide of albumen, and found by him in this disease."

She died of pleurisy on August 16th, 1872. The *post mortem* examination revealed no disease of the heart or blood vessels of the liver or brain. The kidneys were granular, and weighed 3 ozs. each.

The bones of the face (and calvaria) were peculiarly soft. The ribs were thin and elastic, but shewed no signs of fracture. Dr. Moore gives a minute description of the microscopical appearances, with lithographic plates, and also of the chemical composition of the bones, and discusses the nature and cause of osteomalacia.

He concludes by remarking that "the influence of the nervous system over this disease has not been shown. In the Annual Report of the West Riding Lunatic Asylum for 1871 four cases are mentioned as having died from this cause. Dr. C. Browne particularises it as 'a disease in which the skeleton parts with its earthy matter, becomes soft and pliable, and in which the control of the nervous system over nutrition may be distinctly traced out.' From what has been already said, it is obvious that the parts do not become soft and pliable, because a mere shell of bone is left, and this assumes its distorted condition by cracks and fractures. It would also be interesting if Dr. Brown would point out how the nervous system controls this affection, and whether it is the cerebral or sympathetic portions, as this is one most important step towards the solution of the problem."

THE MAINTENANCE OF PAUPER LUNATICS.

This TABLE, showing the Maintenance Rate for Pauper Lunatics in all the County Asylums in England and Wales for 1872 and 1873, arranged in alphabetical order, has been forwarded by Dr. S. W. D. Williams to the *Sussex Advertiser*, of March 10th:—

NAMES OF ASYLUMS.	1872.		1873.	
	s.	d.	s.	d.
Beds, Herts, and Hunts	9	5 $\frac{1}{4}$	10	0
Berks	9	10	10	8
Bucks	11	2 $\frac{1}{2}$	11	9 $\frac{3}{4}$
Cambridge	11	1 $\frac{1}{2}$	11	0 $\frac{3}{4}$
Charmarthen, etc.	9	5	9	6 $\frac{1}{4}$
Chester	9	11	11	0
Cornwall	10	5	10	9 $\frac{3}{4}$
Cumberland and Westmoreland	9	4 $\frac{1}{4}$	9	9 $\frac{1}{2}$
Denbigh, etc. (N. Wales)	8	4 $\frac{1}{2}$	9	5 $\frac{1}{2}$
Derby	10	10 $\frac{1}{2}$	11	0
Devon	8	9 $\frac{3}{4}$	9	0
Dorset	7	5 $\frac{3}{4}$	8	3 $\frac{1}{4}$
Durham	16	1 $\frac{1}{2}$	11	6
Essex	10	2 $\frac{1}{2}$	11	1
Glamorgan	10	0	10	5 7-10

NAMES OF ASYLUMS.	1872.		1873.	
	s.	d.	s.	d.
*Gloucester	9	0	—	—
Hants	9	2½	9	6¼
Hereford	11	1½	10	5½
Kent	10	0½	11	0
Laicester, Moor	8	6½	9	1½
„ Rainhill	9	10½	10	8½
„ Prestwich	9	2	9	11
Leicester and Rutland	9	10	9	10
Lincoln	9	5½	9	5½
Middlesex, Colney Hatch	9	9	9	8¼
„ Hanwell	9	5½	10	5¼
Monmouth, Brecon, etc.	10	1½	11	1
Norfolk	8	10	9	0
Northumberland	11	11½	12	8½
Notts	8	10	9	7
Oxford	10	6	11	10½
Salop and Montgomery	9	1¼	9	8½
Somerset	9	4	11	1
Stafford	8	11¾	9	10
„ Burntwood	9	1	9	6
Suffolk	9	6	10	5¼
Surrey, Wandsworth	9	11½	10	8
„ Brookwood	9	10½	10	9
Warwick	9	7¼	10	0¼
Wilts	8	5¼	8	8½
Worcester	8	7½	8	10¾
York, North Riding	10	2¾	11	6
„ West Riding	9	1	9	11¾
„ East Riding	11	11½	11	0¾
Sussex	9	8½	9	6½
Average			10	3½

Obituary.

FORBES BENIGNUS WINSLOW, M.D.

Dr. Forbes Winslow died on the 3rd March, at Brighton, after a few weeks' illness, at the age of sixty-three. He received his first education in Scotland, and when but fourteen years of age entered as a medical student at Middlesex Hospital, and subsequently at University College. In 1835 he became a member of the Royal College of Surgeons, and graduated as Doctor of Medicine at Aberdeen University in 1849. In the following year he became Fellow of the Royal College of Physicians of Edinburgh, and a member of the London College in 1859, in which year he also obtained the honorary degree of D.C.L. Oxon., on the installation of the late Lord Derby as Chancellor of the University. He was at one time president of the Medical Society of London, and delivered the Lettsomian Lectures on Insanity in 1837, which were afterwards published in 1854. Indefatigable with the pen, he published in 1837 a work entitled "Physic and Physicians," a biographical account of eminent medical contemporaries, which reached a second edition in 1842. In 1840 appeared his "Anatomy of Suicide," and two years afterwards his work "On the Preservation of the Health of the Body and Mind." He also wrote on the "Plea of Insanity in Criminal Cases." In the trial of Macnaughten for the murder of Mr. Drummond, Dr. Winslow gave evidence, as he did also in several other medico-legal cases which excited more or less public attention. In 1843 he wrote on the "Incubation of Insanity;" in 1849, on "Softening of the Brain" arising from

* No return has been obtained from the Gloucester Asylum for 1873.

anxiety and excessive mental exertion; and in 1850 appeared his work on "Obscure Diseases of the Mind and Brain." It has passed through four editions. His next work was on "Light," as influencing life and health. In 1848 he founded the "Psychological Journal," of which he was for sixteen years the sole proprietor and editor. This, the first periodical of its kind in this country, was succeeded by the "Medical Critic," of which he was also editor. Dr. Winslow's health had been failing for some time before his death; he had long suffered from kidney disease, and it would appear that he died from uræmic coma.

J. THOMPSON DICKSON, M.B. CANTAB.

An assiduous and promising worker in the field of medico-psychology has been removed by the death, from heart disease, of this young physician. Mr. Thompson Dickson died suddenly on January the 5th, in his thirty-third year. He was educated at Cambridge, where, having taken the degree of Master of Arts, he embraced the study of medicine. Guy's Hospital was the metropolitan school at which he pursued his clinical courses, and he took the diploma of the Royal College of Surgeons in 1863, the Licentiate'ship of the Apothecaries' Company in 1866, the degree of Bachelor of Medicine at Cambridge in 1867, and the Membership of the Royal College of Physicians in 1868. He became lecturer on mental diseases at Guy's, and his pupils always spoke highly of his prelections. He belonged to most of the medical societies, and occasionally took part in their discussions with spirit and effect. Among other contributions by him to this Journal was one on "Matter and Force in Relation to Mental and Cerebral Phenomena," and he contributed numerous papers on cognate subjects to "The Lancet" and other medical journals. He was the author of an anonymous criticism in the "British Medical Journal," entitled "A Social Blot," which, at the time, excited a good deal of just indignation in those members of the British Medical Association who were slandered by it. Epilepsy engaged a good deal of his attention, and he was employed in making observations as to its pathology and treatment at the time of his premature decease. He was a member of the Medico-Psychological Association, and at the last quarterly meeting exhibited several interesting microscopical specimens and drawings of morbid conditions of the brain and spinal cord. The publication of his lectures at Guy's Hospital has taken place since his death; the work has been noticed by us in this number of the Journal.

Appointments.

M'DOWALL, J. G., M.B., C.M., has been appointed Assistant Medical Officer to the South Yorkshire Lunatic Asylum, Wadsley, *vice* Lowe.

M'DOWALL, T. W., M.D., L.R.C.S.Ed. (Assistant Medical Officer of the West Riding Lunatic Asylum, Wakefield), has been appointed Medical Superintendent of the Northumberland Lunatic Asylum, *vice* Wilson, deceased.

HERFORD, C.H., B.A., M.B., has been appointed Assistant Medical Officer to Moorcroft House Asylum, *vice* Elliott, resigned.

NEWCOMBE, C. F., M.B., C.M., has been appointed Clinical Assistant at the West Riding Lunatic Asylum, Wakefield, *vice* Wright.

SAVAGE, G. H., M.D., L.R.C.P.L., has been appointed Lecturer on Mental Diseases at Guy's Hospital Medical College, *vice* Dickson, deceased.

SARJANT, J. J., M.R.C.S.E., has been appointed Assistant Medical Officer at the Institution for the Insane, Coton-hill, Stafford, *vice* Yeats, resigned.

WICKHAM, R. H. B., Esq., Medical Superintendent Borough Asylum, Newcastle-on-Tyne, has been appointed Lecturer on Mental Disease at the University of Durham.

WRIGHT, F. W., M.R.C.S.E., has been appointed Assistant Medical Officer to the Royal Lunatic Asylum, Aberdeen, *vice* Paterson, resigned.

WOOD, THOMAS O., M.R.C.S.E., L.R.C.P.Ed. (late Medical Superintendent of Dunston Lodge Asylum), has been appointed an Assistant Medical Officer of the Kent County Asylum.

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VOL. XX.

PART 1.—ORIGINAL ARTICLES.

The Morbid Psychology of Criminals. By DAVID NICOLSON, M.B., Medical Officer, Her Majesty's Convict Prison, Portsmouth.

(Continued from Page 37, Vol. xx.)

Prison Discipline as a Test of Mind.

Is a given prisoner fit, so far as his mental condition is concerned, to undergo the discipline to which his sentence of imprisonment commits him?

The relationship existing between the mental constitution of prisoners, and the active and passive penalties which go to make up their prison experience, requires some notice before we can recognise how a special class of weak-minded criminals arises apart from those who are positively insane. The immediate influence likely to be exerted upon the mind by any system of imprisonment is necessarily one of the chief considerations which have to be entertained in criminal legislation. The remarks which I have to make on this subject apply, in the first instance, to the convict population which fills the Government prisons of this country; but it will be seen that from their very nature they are likewise applicable to prisoners undergoing shorter sentences in county and borough gaols. Apart from the fact that the convict prisons are best known to me, there are other grounds why their inmates should form a legitimate basis for the investigation of the question which I have put. We have the criminal class *par excellence* subjected for prolonged periods as one large body to a definite and uniform method of treatment, such as enables us more profitably to study them.

The convict system of England—*i.e.*, the system adopted with regard to criminals sentenced to penal servitude—is uniform in its application to all convicts alike, no matter what their previous occupation or condition in life. In principle

From this it will be seen that each primary division is subdivided into two, making in all four psychological groups or classes of imprisoned criminals, which it will be well for us to bear in mind.

This subdivision, however useful from a practical point of view, is purely arbitrary; for although each class of criminal is distinctly represented by individuals who are to be taken as types of that class, yet the whole four classes, from the highest to the lowest, *i.e.*, from the casual criminal down to the insane criminal, merge into one another, so as to form a continuous chain of mind in the whole body of criminals. So that, although there is a distinct separation between the merely thorough criminal and the weak-minded criminal, on the ground of fitness for prison discipline, there is no such clear break from a simple psychological aspect. They may be said to mingle insensibly at the point of contact, and hence the great difficulty—the impossibility I might say—of applying a distinctive test to individuals at this point. Yet we are called upon as a matter of duty to draw a line somewhere with regard to the value of certain evidences of mental character which are more or less anomalous; and with criminals in confinement, the most available guide lies in the discipline to which they are subjected. Discipline in penal servitude must be held to stand in the same relation to the mental condition of the prisoner as labour does to his physical capacity. The healthiest possible state of mind or body has a limit of endurance as regards discipline or labour. And as bodily weakness or defect necessitates the reduction of the labour-task, so does mental infirmity demand and require a relaxation of discipline. It will be asked—How does Prison Discipline (by which are meant the whole circumstances and routine of prison life) express itself as a test of mental capacity? In ordinary social life there are certain rules by which conduct is regulated; and according to which, amid every variety of circumstance, the actions of individual members of the community are estimated. These rules, some of which are optional and some obligatory, are necessarily somewhat elastic, but they nevertheless form a basis upon which a man's behaviour is tested; and when that behaviour is such as to raise a question as to his sanity, they become a test of mind as well. In prison, social freedom has no place, surroundings are circumscribed, circumstances become more exact, and rules of duty and conduct are laid down with a precision elsewhere unattainable. In short, life

in prison becomes a discipline; and that discipline takes the place of those elastic formulas by which anomalous behaviour under ordinary conditions is tested. Taking each in its own circumstances as a criterion of mind, prison discipline is simply the counterpart of social rule.

But there are certain considerations which will help us more clearly to define the nature of this test as applied to prisoners. I refer to them as showing the relations of prison discipline to mind under three conditions, viz., separate confinement, general prison life, and special prison punishments.

1.—*As to separate confinement.*—About thirty years ago an extended series of experiments and comparative observations was made in this country on the subject of “Separate Confinement,” and the length of time it might be continued as a reformatory adjunct to imprisonment without risk of injury to the mind. The conclusions arrived at were indubitable. They are thus stated by Colonel Du Cane, Chairman of the Directors of Convict Prisons, in a paper* read before the International Prison Congress in 1872. “When the system of separate confinement was first established in the Model Prison at Pentonville years ago, the duration of the period of separate confinement was fixed at eighteen months. Results, however, showed themselves which could not be neglected. It was shown incontestably, as the reports of the Commissioners demonstrated, that the minds of the prisoners became enfeebled by long-continued isolation, and after the various trials the present term of nine months has been fixed on as the longest to which prisoners can with advantage be subjected to this stage of the discipline.”

A lengthy detail of these experiments would be out of place here, and I shall content myself with giving the following extract from the late Dr. Baly’s report on Millbank Prison for the year 1851:—

When this punishment (separate confinement) is continued for many months, and especially when it is carried out in all its integrity, it exerts, as might be expected, a depressing influence on the whole nervous system of the convicts submitted to it. The result is shown partly in a loss of physical vigour, and of the power of resisting external impressions (whence arose those singular convulsive attacks from which many men suffered at a former period on their being transferred from their separate cells directly to the convict ships), and partly in an impairment of mental energy of various degrees. In

* “An Account of the Manner in which Sentences of Penal Servitude are carried out in England.” Published in the “Transactions of the Congress.”

some men this state of mind has approached to decided imbecility; in others it has seemed to be the cause of a proneness to insanity under the influence of the excitement attending embarkation; while in others again, the loss of mental energy has been of such a kind and degree as to be recognisable only by those persons who were in constant intercourse with the men, and could contrast their present with their former condition, or by those who had the opportunity of comparing them in a body with other large bodies of convicts. There can be no doubt that in the large majority of cases this depressed state of the mental powers is recovered from, more or less quickly, when the men are restored to society. But a permanent impairment of the mind of this character must, I am persuaded, be reckoned together with the more obvious forms of mental disorder among the occasional evil results which the separate system is capable of producing when it is enforced with strictness for long terms.

In these experiments the effects produced on the mind were taken as the measure of the period to which separate confinement (a valuable disciplinary agency) might, as a rule, be extended with safety. The period of nine months having been proved and established as the general and maximum limit, the point of discipline involved in separate confinement becomes thus far a test of mental capacity in particular cases. The strength of a prisoner's mind is so far tested by his being able to stand out the regulation period of separate confinement, and its weakness is shown in proportion as he is unfit to endure that discipline without injurious consequences. Those minds which are naturally defective, or which have a predisposition to insanity, will, of course, most speedily become affected by any system of discipline which is shown to be capable of unsettling, sooner or later, minds that are quite healthy.

2.—*The Discipline Test in ordinary Prison Life.*—I have commented on separate confinement by itself, partly on account of its special nature, but mainly on account of the distinct results obtained regarding its effects. The demonstration afforded by these latter are so complete, as a matter of actual experiment, that little more than the mention of the other considerations, by way of corroborative evidence, is required. The experiences connected with general prison life, as a disciplinary exercise of the mind, are less immediate in their pressure than those in separate confinement; and their results cannot be calculated so precisely. They may be taken to embrace the whole or any of the elements of which prison discipline is made up, and they afford a variety of con-

ditions which are more or less disagreeable, and which may have a corresponding influence on the minds of prisoners. The safe limit of separate confinement having been established, it is to be accepted as a matter of fact that the restrictions and exactions of penal servitude are arranged with due regard to the mental condition of those who are subjected to them, and that there are no restrictions or exactions which are likely of themselves to exert an injurious influence on minds of even less than average capacity. They are necessarily calculated with the view of creating a certain impression upon the thoughts of the prisoner, and this impression may reveal itself as one among other causes coincident in producing mental disturbance. But more than this cannot be said. In the cases where the mind does break down under ordinary prison discipline (without any history of misconduct and punishment), the effects of time, even during the associated portion of prison life, may, of course, have told unfavourably on the mental disposition, perhaps merely from long separation from social sympathies in some, or in connection with general physical depression in others; or the particular class of labour at which he is employed may have proved exceptionally disagreeable and annoying to him. These, or such like accidental circumstances, may serve to bring out the irritability which has hitherto been latent in a badly organised mind, or in a mind otherwise disturbed by the operation of depressing influences upon it.

3.—*Special Prison Punishments.*—It will readily be understood that repeated or long-continued prison punishment (in the way of isolation and reduced diet) in addition to the ordinary discipline, forms the severest test of mind. The great majority of mental cases are first brought to notice in connection with the question of punishability for misdemeanour, and it is often most puzzling to know how far the misconduct is to be laid to the charge of simple viciousness of temper and disposition, or ascribed to mental infirmity. And when repeated punishments in the case of an individual prisoner have also to be considered, we have a further element of difficulty as to the effects that the punishments themselves may have had on the mind.

No prisoner whose mind is fairly regulated will lay himself open to such punishment as will be likely to affect him seriously. It is the good-for-nothing scoundrel that ultimately requires our interference; whose insubordinate and violent tendencies, when he has once begun a desperate

course, are equalled only by his utter callousness in the matter of punishment. To hold that all such are irresponsible and not punishable would be a dangerous doctrine, and would simply provoke more numerous assaults on the part of criminals, with the view of obtaining the specially mild treatment accorded to the weak-minded class—a body which cannot, even as it is, be said to be free from impostors.

I do not bring forward the prison discipline test as a new *principle*, whereby the actions of individuals amid their surroundings may be estimated and judged; but rather as helping to show how the special and uniform circumstances of prison life may be utilized as a basis for the classification of criminals. Thus, two people who disagree as to the actual psychological value of certain evidences of eccentricity or of mental weakness in a particular criminal, might, readily enough, agree as to whether he was fit or unfit for prison discipline.

The three considerations to which I have drawn attention, all hang together as regards the whole system of discipline in its bearing on the mental condition of prisoners. For example, the mind which shows signs of tottering under separate confinement may regain and preserve its balance in the partial association of public-works prisons. Again, the mind which is strong enough to cope with all the ordinary discipline, may be unfit to resist the detrimental effects of repeated prison punishments. But there are those minds which require a more or less complete relaxation of prison discipline, as being unfitted either for separate confinement or associated labour. The convicts of this stamp receive special treatment on mental grounds, and we now proceed to consider them as a class.

It may be observed that the prison discipline test enrols as mentally weak some who would not be considered so if they were free and engaged in some of the occupations of social life.

Weak-mindedness among Prisoners.

The anomalous mental manifestations of the group of beings to which we are now about to direct our attention are altogether *sui generis*. They connect themselves with a set of circumstances, which, although differing materially in points of detail, are yet capable of being drawn up side by side and viewed collectively. Our acquaintance with the life-experience of this group begins with them as individual members of the social throng, moving hither and thither with the same personal privileges and liberty of action as those around them. We next see them in the guise of social rebels and outcasts,

as individual criminals among criminals, and under prison discipline, having outraged the principles of order and forfeited their freedom. And lastly we have them forcing themselves into prominence by their behaviour in prison, thus separating themselves from their fellows, and forming a special group, under the name of the "weak-minded."

The members of this strange class, then, have in common a three-fold bond of alliance in their social, criminal, and mental history, and any investigation into the last of these necessarily involves a consideration of its relation to the other two.

As a designation of the class, I have selected the term "Weak-minded," using the expression "Weak-mindedness" with reference to the mental condition. Officially there cannot be said to be any distinct name applied to the class—sometimes they are "Weak-minded men," sometimes "Imbeciles," "Other mental cases" (than insanity), &c. And the same as regards the condition of mind. Nor is it very easy to get one word which is exactly suitable. I do not think there is one more adapted to our purpose than that which I have selected. "Weak-mindedness" is comprehensive enough to embrace mental weakness in its various forms, and it leaves us more scope for indicating the *directions* of the weakness than does the word "imbecility," which seems to be more useful in its limited sense. We require, also, a word which does not commit us too much, *i.e.*, whose meaning stops short of actual insanity; and on this score, "weak-mindedness" is as free from objection as any other single word. It is always necessary for us to reserve something in the direction of the individual's mere criminality (*i.e.*, his sanity), and as relating to his prison circumstances: or else we might as well say that he is insane (a thing which we are not prepared to do), and thus get rid of the difficulty. Thus, a man may be weak-minded as a prisoner who could not be called so under the ordinary circumstances of life. The pressure of prison life and discipline may cause his mind to give way, and the removal of this pressure restores it. Are we to stamp this prisoner as a lunatic, and relegate him to an asylum, when the relaxation of prison discipline is all that is required to cure him? My reply, under all the circumstances, is, "assuredly not;" although I am aware that those who are inclined to "view crime as insanity" might advise differently.

The term weak-minded as applied to a prisoner will be seen to have two values, a greater and a less; it may mean that he is absolutely weak-minded, that he is weak-minded under any

circumstances; or it may mean that he is weak-minded only under prison circumstances, *i.e.*, only as a prisoner. This point is really an important one, and affords, I believe, a solution for many of the cases where a man who is evidently insane in prison is found to be simply criminal (and *now* something of an impostor too, as not willing to give up his new and comfortable quarters) soon after his transfer to an asylum.

We have thus left open for us the *possibility* that a weak-minded prisoner is *not weak-minded except as a prisoner*; and it is this possibility, as well as the exclusion of the idea of actual insanity, for which we have to provide in our use of a word which embraces the whole class.

By "Weak-minded" prisoners we are to mean those prisoners who require, on mental grounds, medical interference and some relaxation of prison discipline, but for whom a certificate of lunacy is either not warranted or not expedient. It is the duty of the Medical Officer of a prison to interfere whenever he has reason to believe that the mind of a prisoner has become affected, or is likely to suffer impairment, and to recommend such remedial measures as seem best to him.

It is most difficult to arrive at any precise idea of the relative frequency with which the mind breaks down in particular directions under special circumstances or modes of prison discipline. The piecemeal information to be derived from Prison Blue Books as to the mentally weak class is not available for this purpose. It may not be the province of Blue Books to work out psychological queries directly; but they are yet capable of affording valuable information by attention to uniformity in the details which they do give. The only point which I am able to illustrate with any satisfaction is that given in the following list of the mental grounds for relaxation of discipline, which I am able to arrange under a few heads from the returns of Mr. Bradley, the late Medical Officer of Pentonville, for the years 1854-58 inclusive:

LIST SHOWING NATURE OF MENTAL CAUSES FOR SUSPENSION OF DISCIPLINE
IN 100 CASES OF SEPARATE CONFINEMENT.

Depression, with or without suicidal tendency	31
Delusion, morbid suspicions and fancies	22
Mental Irritability, nervous and excitable	22
Low Intellect, dull, and stupid	15
Anomalous { Motiveless misconduct	3
{ Terror at night	1
{ Blasphemous thoughts and spiritual doubts.	1
{ Odd	1
{ Not stated	4
	10

These cases, which I have endeavoured to arrange as nearly as possible in Mr. Bradley's terms, occurred after the rule restricting separate confinement to nine months was laid down. A few of them, however, had been over twelve months before interference was necessary.

As I mentioned before, separate confinement occupies the earlier portion of the prisoner's sentence, and it is at this time that his mind is most influenced by the utter change of circumstances, and the disappointment of his hopes; and that any feelings of shame and remorse are most likely to have an effect upon him. To this, I believe, is mainly attributable the fact that depression stands so high on the list. And in the solitariness of his existence his mind is so isolated and borne in upon itself by the repetition of a limited circle of ideas that the growth of delusions and morbid fancies is especially favoured.

We have no corresponding data to show the frequency with which the same forms of mental infirmity appear in connection with the second stage of discipline, where the men are associated by day and occupied at heavy labour out of doors. Judging from my own impressions formed at public-works prisons, I should say that such cases as those coming under the head of Mental Irritability and Excitability would show a decided preponderance over the other forms of weakness. By the time the prisoner gets down to public works, he has got over the primary tendency to depression, and any want of balance of his mental powers is more likely to show itself in resisting the active pressure of authority which is brought to bear upon him in connection with his work. Opportunities of talking to his fellow prisoners, and the greater physical exertion (so long as it is not in excess) required of him, lessen the probabilities of his becoming depressed or full of delusions.

Associated with prison punishments are usually found those prisoners in whom mental irritability and excitability show themselves; but this form of mental disturbance does not appear to be due to the punishment. When long continued punishment can be shown to have an injurious effect upon the mind, it acts rather by depressing the vitality of body and mind together; through want of nutrition there is a prostrated condition of the nervous system generally, and the mind becomes dulled and quite apathetic. But medical aid steps in to ward off such grave symptoms.

We shall now proceed to inquire into some other features

in the history of this weak-minded class; and for this purpose I have taken 200 who are to be looked upon as representative of the whole. They are not selected from any point of view; they are all male convicts who were in prison about the same time (1871-72); and care has been taken that no prisoner is reckoned twice from his having been transferred from one prison to another. As many as 108 of them are shown in the returns for Parkhurst Prison; the remainder were under treatment at Woking and Millbank, at which establishments I came more or less in contact with them officially.

Age of Weak-minded Prisoners.—The following list shows the number at various decennial periods, there being none under 15 years of age. I give also a list of the numbers at corresponding ages of the whole male convict population (March, 1874), which will serve for comparison, and for which I am indebted to Dr. Guy.

Age.	Total Convict Population (Males).	Weak-minded Male Convicts.
Under 20 Years	539	7
From 20 to 30 Years... ..	3825	92
„ 30 to 40 Years... ..	2286	46
„ 40 to 50 Years... ..	1010	33
„ 50 to 60 Years... ..	528	12
Over 60 Years	237	10
	8425	200

Taking decennial periods from the 20th year, it appears that the numbers in the various periods are in inverse ratio to the age, the highest number occurring at the earliest age. And this statement applies to the “whole population” as well as to the weak-minded group. One half of the 200 weak-minded were under 30 years of age, and there were twice as many in the decennial period from 20-30 as in the period from 30-40 years of age. This shows us the absolute proportion of the weak-minded at the various ages; and the following table will give the relative proportion.

TABLE showing relative proportion per 1,000 of weak-minded convicts to a whole convict population, at corresponding ages. (Males.)

Age.	Per 1,000 Convicts.	
	Whole Population.	Weak-minded.
15 to 20 Years	64	35 (— 29)
20 to 30 Years	452	460 (+ 8)
30 to 40 Years	271	230 (— 41)
40 to 50 Years	120	165 (+ 45)
50 to 60 Years	63	60 (— 3)
Over 60 Years	28	50 (+ 22)

I have put within brackets the numbers showing an increase or decrease (+ or —) of the weak-minded proportion per 1,000 as compared with that of the “whole population” in the various decennial periods.

Both tables testify to the high proportion of prisoners, and also of weak-mindedness among prisoners, which occur between the ages of 20 and 30;—a time when, in the ill-conditioned mind, the spirit of restlessness and the want of self-control give rise to those extravagant and destructive outbursts to which I referred when speaking of emotional display. The elderly prisoner takes care to avoid those difficulties into which the impetuosity of the younger is sure to lead.

Previous Occupation.—The occupation which the 200 weak-minded professed to have followed before imprisonment is not of great interest, especially as the statement of many prisoners in this respect is doubtful. Thus nearly the half of them put themselves down as “labourers,” not caring to give their real occupation, if, indeed, they had any except thieving. The others may be taken as pretty correct.

The occupations are given as follows:—Labourers, 95; miners, 9; smiths and ironworkers, 7; shoemakers, 7; weavers, 7; tailors, 6; painters, 5; dealers, 4; sailors, 4; soldiers, 4; hawkers, 3; bricklayers, 3; factory hands, 3; umbrella makers, 2; carpenters, 2; and one each of the following—besom maker, sawyer, harness maker, agent, gilder, button maker, rope maker, paper maker, farmer, jeweller, waterman, comb maker, plasterer, commercial traveller, mat

maker, printer, cabman, chair maker, engine-driver, potter, cigar maker, spirit dealer; not given, 17; total, 200: a motley group of talent, or want of it.

If we reflect that these weak-minded men belong for the most part to the lowest strata of the criminal classes, we shall be prepared for the most meagre display of anything like *education*. They are not only lamentably ignorant, but, what is worse, they are lamentably unteachable. Some years ago, when a question arose at Pentonville as to the instruction afforded to those in whom mental weakness exhibited itself, the late Rev. J. Kingsmill, a justly esteemed authority, thus expressed himself—"I have maintained from an early period of this institution that some minds are incapable of profiting by book education to any practicable purpose. There are and have been always a few such persons in this prison upon whom the combined efforts of the masters, if exclusively devoted to them, could scarcely produce any visible effect." The sight of a class of adult and veteran criminals plodding away at their books in the halls of a prison is one which would touch the sentimentalist with a species of melancholy, while from some sceptics it would but draw an ominous shake of the head. But results connected with comparatively recent prison regulations on the subject of letter-writing have shown that there is good reason for hope; that among the whole body of criminals a fair start is acquired by some, and that others improve considerably upon any previous knowledge they may have possessed. But the value of education when applied early in life among the criminal classes *must* make itself felt as a great power for good, in spite of any natural dulness of intellect which they may possess.

The education of the better-class criminal shows itself as a mainstay when his mind would give way; and when actual infirmity does manifest itself, it is mostly the *affective* side of his mental life which is attacked, his feelings being overcome by a deep self-consciousness of his degraded position.

The Crimes of Weak-minded Prisoners.—The question of immediate kinship between certain states of mind and the commission of crimes of whatever magnitude is of great interest and importance. Its importance is social as well as psychological, for it extends into the complicated region of forensic dispute as to the responsibility of certain individuals, and certain classes of individuals.

Dr. Guy, in an interesting Paper* published about five

* "On Insanity and Crime; and on the Plea of Insanity in Criminal Cases."—"Journal of Statistical Society," June, 1869.

years ago, says that from some tables which he gives, "it appears that the 217 military offenders and the 5,735 civilians contributed to the convict population of 1862 precisely the same proportion of men of weak mind. And we may infer from this that there are to be found among the population which supplies us both criminals and soldiers about 28 in the thousand of weak mind not yet recognised as proper objects for the lunatic asylum. Some of these men, characterised in the picturesque language of the mendicant-thief community as *half sharps*, are to my knowledge very hard to understand. They are a puzzle to doctors, magistrates, and recruiting officers alike;—plausible beggars, adroit thieves, extremely dangerous and costly members of the community." Again, from other tables "we learn that the men—a mixed class of weakminded, insane, and epileptic—who suffer from diseases of the mind and nervous system are specially addicted to sexual offences, to arson, and to acts of violence other than burglary."

The following analysis shows the crimes (grouped in certain classes) of the 200 weak-minded men who form the subject of our investigation.

Burglary, Larceny, Fraud, &c. (including two unknown)	.	.	131
Homicide and Personal	{	Murder and Manslaughter	10
Violence	{	Shooting, Wounding, &c.	23
Arson	.	.	27
Rape and other Unnatural Offences	.	.	9
Total			200

From their character and their great frequency, we may consider those crimes coming under the head of burglary, larceny, &c., as being *ordinary* or simple crimes as compared with the three other classes of crime, including homicide and personal violence, arson, rape &c., which we may call *special* or aggravated crimes.

It will be seen from the following Table that ordinary crimes appear in 833 cases per 1,000 of whole convict population, and in 655 per 1,000 of the weak-minded class, a difference of 178 per 1,000, which has to be accounted for in the list of special crimes among the weak-minded group.

With regard to the special crimes, the information to be got from the Table may be read thus: while special crimes show 167 cases per 1,000 among the whole convict population, they show 345 per 1,000 among the weak-minded convicts. Homicide and personal violence show 165 per 1,000 among the weak-minded, as against 100 per 1,000 amongst the whole

convict population. Arson shows 135, as against 28; and rape, &c., 45, as against 9; there being an increase of 65, 107, and 6 per 1,000, under each respective class of crime in the case of the weak-minded.

From this it would appear that criminals who have been convicted of arson have the greatest tendency to show weak-mindedness in prison, then those who have been guilty of acts of personal violence, then those guilty of sexual offences, and the measure of the extra tendency in each would appear to be as the numbers 107, 65, and 6 in 1,000.

The Table also helps us to form some opinion as to the relation between weak-mindedness and the different classes of crime.

TABLE, showing actual number and proportion per 1,000 of Weak-minded Convicts, as compared with an entire Convict Population,* under various Forms of Crime (Males).

Form of Crime.		Actual Number.		Number per 1,000.	
		Whole Convict Population.	Weak-minded Class.	Whole Convict Population.	Weak-minded Class.
Ordinary Crimes.	{ Burglary, Larceny, Fraud, &c. }	4782	131	833	655
	{ Homicide and Personal Violence }	542	33	100	165
Special Crimes.	{ Arson }	115	27	28	135
	{ Rape and other Unnatural Offences }	159	9	39	45
Total... ..		5598	200	1000	1000

The tendency of actual *homicides* to show weak-mindedness is very probably under-estimated when taken, as here, in combination with criminals guilty merely of shooting, wounding, &c.; but I am unable to give exact proportions. Besides,

* The "Convict Population" column is calculated from the Tables given by Dr. Guy in the paper above referred to. It will be understood that the weak-minded here given do not belong to this particular convict population, which I have taken as the only basis of comparison as to crimes which I know.

there is a greater elimination of homicides on the ground of mental unsoundness at trials than there is in the case of other crimes, so that a smaller proportion of mentally weak homicides become convicts.

Prison Conduct in relation to Crime.—Misconduct in a prisoner attracts our attention either by its singularity, its furiousness, or its frequent repetition. Although it would be impossible to lay down decided rules on the subject, it is nevertheless necessary for us to make ourselves acquainted with the general behaviour of individuals whose state of mind comes into question. The prison offence may be read best when taken in connection with the past conduct, and possibly also with the crime of the prisoner. The following list shows the nature of offences committed by prisoners for which they are reported, and either admonished or punished. It is published in the returns for Pentonville Prison for the year 1863; and although the system of separate confinement carried on there may modify the proportionate frequency of different offences (as compared with the prisons where the men are in partial association), yet we shall get a sufficient indication of the character of prison offences generally.

List of Prison Offences.

Communicating by writing	52
„ by talking	292
„ by knocking on cell walls	11
Writing, passing and receiving obscene and filthy communications	7
Writing on, or wilfully defacing books, &c.	26
Disobedience of orders	39
Disorderly conduct at chapel, school, and exercise	25
Shouting, whistling, swearing, destroying cell furniture, and other violent and insubordinate conduct	62
Violently assaulting officers	5
Making preparation for and attempting to escape	4
Making false accusations against officers	4
Threatening language and insolence to officers	66
Wilfully destroying work material, wearing apparel, &c.	29
Purloining and exchanging bread, meat, &c., in association principally as cooks, bakers, &c.	15
Fighting and wrangling in association	21
Having cells in a filthy state and refusing to clean them	6
Having tobacco or money in possession	2
Idleness at trade	37
Concealing work material	3
Carried forward	706

Brought forward	706
Breaking glass in cell windows	11
Disfiguring person by cutting hair, &c.	3
Causing a disturbance on removal to this prison	1
Feigned attempt at suicide	1
<hr/>	
Total	722

These 722 "reports" were incurred by 344 prisoners out of 1,287 who had been inmates during the year. There were 429 punishments which were distributed among 245 prisoners (99 out of the 344 reported not having been punished) in the following manner :—

1 prisoner was punished 11 times.				
1	”	”	10	”
2	”	”	9	”
2	”	”	7	”
2	”	”	6	”
7	”	”	5	”
7	”	”	4	”
17	”	”	3	”
44	”	”	twice.	
162	”	”	once.	
<hr/>		<hr/>		
245				

When the crimes or the prison offences of prisoners are of ordinary character, they afford of themselves little or no indication of the mental condition. But when our attention is attracted to a prisoner by his misbehaviour, we have a large element of support to any suspicions we may have as to his mental soundness, if we find that he has been convicted for some brutal deed or other special crime; and this is all the more valuable as being an evidence of the individual's mental tendencies when he was more of a free agent, and not under the constraint of imprisonment. There is not, I may say, much opportunity for mental weakness or disturbance of a criminal cast showing itself exactly in the same direction *in* prison as out of it; but although the current of display is diverted, we are bound to connect that display with its real origin whenever we possibly can. The incendiary does not in prison show the mental infirmity which is so often his natural inheritance, by a practice of setting fire to the furniture of his cell, or other property; indeed, I do not know that this can ever be shown to occur. But the fact of his never committing himself by fire-raising *now* is no proof of an esta-

blished healthy balance of mind. We have to remember, rather, what the figures of the Table told us, viz., that criminals convicted of arson have a strong tendency to show weak-mindedness in prison; and we have to be on the outlook for eccentricity or perversity of conduct on the part of those so convicted.

Except in the matter of food there is little in prison that calls for the exercise of the ordinary thieving propensities; although as far as stealth and secretiveness go there is no lack, for great ingenuity is shown in the way in which prisoners manage to conceal a piece of pencil, a knife blade, a piece of tobacco, or other contraband articles.

The circumstances of imprisonment preclude (except most rarely) the possibility of such sexual outrages and abominations as are punishable as crimes.

But prison life rather favours one exceptional opportunity of repeating out-of-door tendencies in the way of exhibitions of passionate and threatening conduct, together with attempts at personal violence.

Now the proclivity to "punch the head" of a fellow-being, or in any way assault him with violence, may, or may not, be a mental weakness, just as it may, or may not, be an evidence of insanity, the surrounding circumstances being the test; but it is an important question, and one not easily settled, how far this proclivity may, as a matter of reasonableness and responsibility, be permitted to go; or how soon interference is demanded on the ground of intellectual or moral unsoundness.

Throughout our prisons, and in every way mixing with their fellows, there are a few criminals who have acquired the stamp and designation of "dangerous characters," and whose movements have to be specially watched. They go on very well when it suits them, but they cannot be trusted, as they are exceedingly quarrelsome and violent, and full of threats. These men cannot be held to be insane simply on this evidence. They are not always of the low, gross-minded type of criminal, and their defiance has more of a deliberation about it than there is in those violent emotional outbursts with which prisoners are at times suddenly attacked. The wildness of the "dangerous character" can be tamed by punishment in some cases; he is sometimes amenable to kindness in some form, or to a firm judicious management, and very often the transfer from the scene of his difficulties to another prison produces an entire and pleasing change in his demeanour.

But, short of this "dangerous" stage, the aggravated misdemeanours of prison life are nearly all in the direction of insubordination and threatened and actual assaults with more or less serious intention. Now, unfortunately, badness and madness or weak-mindedness may go hand in hand thus far. We can *punish* badness, but we must *treat* madness; and we are anxious, as a matter of right and justice, to avoid punishing madness and, as a matter of official duty, to avoid treating badness (by virtual reward). With prisoners of this insubordinate class it would never do to be too ready with the plea of mental unsoundness, for we should thereby unjustly afford encouragement to prison offenders, seeing that it implies the substitution of a relatively comfortable ease in the place of irksome discipline. But if we are satisfied of the presence of mental unsoundness, of whatever degree, we have to interfere with the remedial measures which, under given circumstances, are calculated to be most effective. If we are expected, as the saying is, "to give the devil his due," we are bound to accord the criminal the same privilege, and we must not punish his insanity.

(To be continued.)

*An Inquiry into some Accounts of Children being fostered by Wild Beasts.** By WILLIAM W. IRELAND, M.D., Edin., Medical Superintendent of the Larbert Institution, Stirlingshire.

Quis credat pueris non nocuisse feram?

Non nocuisse parum est; prodest quoque.

OVID.

It has been a question for curious speculation since man began to reflect on the origin of knowledge and the nature of his own faculties, what would be the character of a human being growing up without any intercourse with his kind, and having no ideas and no knowledge save those derived by his own unassisted intellect from his observations of the external world. Man's acquired knowledge being evidently the combined product of his own innate capacities, tastes, and sympathies, and the suggestions and customs resulting from his contact with other beings, it is only by a very difficult and somewhat doubtful process of analysis that

* Read at a Quarterly Meeting of the Medico-Psychological Association, held at Glasgow, on May 21st, 1874.

philosophers have been able to distinguish what is innate and what is acquired; and, as every one knows, great discussions have taken place as to the line of demarcation between those ideas which are the result of education, and those supposed to be of spontaneous growth. The experiment said by Herodotus* to have been performed by King Psammitichus is one likely enough to have been made by an eastern prince addicted to those speculations on the origin of ideas which so naturally present themselves to human curiosity. In order, as the priests of Memphis told the great father of history, to decide the important question:—Which was the most ancient of nations?—the king gave two newborn children to a shepherd to educate. They were nursed by goats and separated from all human beings. The first sound they uttered was *βέκός* and this on inquiry being found to be the Phrygian for bread, the Egyptians admitted ever after that the Phrygians were of more antiquity than themselves.

It is said that a similar experiment was repeated by the philosophical Emperor Frederick II., but, as M. Renan tells us, by a refinement of delicacy the chronicler makes the two little creatures to die, because there was no one to sing them to sleep. According to Lindsay of Pitscottie, James IV. made the islet of Inchkeith the scene of another attempt of the same kind. "In order to discover, if possible, what was the natural and original language of the human race, he sent two infants under the charge of a dumb woman, to reside there, and that there might be no occasion for any intercourse with others, caused them to be well provided with all the necessaries which their situation might require, till the children should arrive at maturity."† The result of the experiment is not recorded. Lindsay speaks only of a vague report remaining in his time. "Some say that they spoke good Hebrew, but as to myself, I know not but by the author's report."

Failing these rude experiments, which do not appear to have gained any satisfactory results, the curiosity of the learned has been directed to children found straying in the woods, deserted by their parents, and feeding like wild animals. One of the most celebrated of these creatures was a girl caught at Soigny, near Châlons, in 1731, who after-

* Herodotus, *Clio*, cap. ii., compare the remarks of Renan on this passage. "De l'Origine du Langage," Paris, 1858, p. 30.

† See "Chambers' Gazetteer of Scotland," Edinburgh, 1833. Article "Inchkeith."

wards went by the name of Mademoiselle Leblanc. When found she was mute, but after learning to speak, she was able to give some account of her previous condition. She was very expert in climbing and swimming, and was said to have lived upon small animals and fish which she caught. She long retained a taste for sucking blood and eating raw flesh.

As late as 1798, a boy about eleven or twelve years of age, was seen in the woods of Caune, in the department of Aveyron, in France, seeking for acorns and roots. He was caught by three sportsmen, and finally brought to Paris, where his education was undertaken by M. Itard,* Physician of the Deaf and Dumb Institution there. The result proved the correctness of Pinel's diagnosis that the boy was an idiot. This was also the case with Peter "the wild boy," who was caught in the woods in Hanover, in 1724. Blumenbach, who investigated this case, says that Peter when found had still some rags of clothing on his body. His legs were white compared with the colour of his feet and ankles, shewing that he had not long before been wearing trousers, but no stockings or shoes. His parents were at last found, and his early history ascertained. Peter was brought to England to be placed under the care of Arbuthnot. His peculiarities have been described by Swift and Monboddo.

A still more curious subject of inquiry is afforded by stories of children, deserted by their parents, being fed and guarded by wild beasts. Everyone knows about Romulus and Remus being suckled by a she-wolf, which some of the ancient writers have gravely narrated as if worthy of belief.† It seems to me singular that there are not more legends of the kind handed down to us from antiquity.

There is a reference by a modern writer to the case of the Cretan Miletus, the founder of the capital of Ionia, though I

* "An Historical Account of the Discovery and Education of a Savage Man, or of the first developments, physical and moral, of the young Savage caught in the Woods near Aveyron, in the year 1798," by E. M. Itard, &c., London, 1802. In reading this pamphlet, plainly the work of a superior mind, one cannot fail to be struck with the subtlety of the analysis of the sensory and mental powers of this "simple child of nature," as M. Itard believed him to be, and the sagacity of the means used to educate his intelligence. The skilful preceptor overrated the mental capabilities of his pupil; but he has laid down a suggestive and valuable method of education, which has been of great use in the training of idiots.

† See for example, Justinus Historiarum Philippicarum, Lib. xliii., cap. i., Sed Fortuna origini Romanæ prospiciens pueros lupæ alendos obtulit; quæ amissis catulis, distenta ubera exinanire cupiens nutricem se infantibus præbuit.

can find no mention of the prodigy in the ancient authors whom I have referred to.

Herodotus* mentions that Cyrus was exposed when an infant by his grandfather, Astyages, and that his parents gave out that the child had been nourished by a bitch. This, he thought, arose from the woman who preserved Cyrus being called *Σφακώ*, which meant a bitch in the Median tongue.

The best authenticated story of this kind is given by Procopius.† During the Gothic war a woman in Picenum, having been either carried away or killed, her new-born child was left deserted. The infant was cared for and nursed by a she-goat. After the alarm had passed away, the neighbours returned and found the child, whom they named *Ægisthus*, after its foster parent. Procopius says he himself saw the child, and that those with him teased it to make it cry, when the goat, which had been a little distance off, came running up, and stood over the child to protect it.

In modern times some writers have given accounts of children being fostered by wild beasts, not from the voice of tradition, but from the reports of direct observation. In General Sleeman's work upon Oude‡ there is a collection of cases of boys, who were found in the woods in company with wolves, and who were believed to have been fed and taken care of by these ravenous beasts. The stories are written in a lively and natural manner, and reproduce the style and tone of thought of the Hindustani narrators.

The General cites numerous witnesses, some of them European officers. I wrote to Dr. Stevenson, who is repeatedly mentioned in Sleeman's work, and who was long Residency Surgeon at Lucknow, and is now residing at Crief. This gentleman never saw a case of a child carried off by a wolf who escaped, save one, who was rescued after its scalp was torn off. He has seen the "wild man of the woods," mentioned by Sleeman, who says of him, "That he was found as a wild boy in the forests, there can be no doubt; but I do not feel at all sure that he ever lived with wolves." Of this man, who lived in the menagerie of the King of Oude, Dr. Stevenson writes—"My most abiding impression of him is his irritability when approached by strangers, and his chattering more like a monkey than a man."

* Herodotus, Lib. i., cap. 122.

† De Bello Gothico, Lib. ii., cap. 16.

‡ "A Journey through the Kingdom of Oude in 1849-50," by Major-General Sir W. H. Sleeman, K.C.B., resident at the Court of Lucknow. London, 1858. Vol. i., pp. 208-222.

It ought, however, to be borne in mind that General Sleeman travelled about the whole of Oude, and saw many wonderful things, nor is there any doubt of his good faith or desire to obtain correct information.

The description of the first of his cases is given in so graphic a manner that I venture to quote it without abridgment:—

There is now at Sultanpoor a boy who was found alive in a wolf's den, near Chandour, about ten miles from Sultanpoor, about two years and a half ago. A trooper sent by the native Governor of the district to Chandour, to demand payment of some revenue, was passing along the bank of the river near Chandour about noon, when he saw a large female wolf leave her den, followed by three whelps and a little boy. The boy went on all fours, and seemed to be on the best possible terms with the old dam and the three whelps, and the mother seemed to guard all four with equal care. They all went down to the river and drank without perceiving the trooper, who sat upon his horse watching them. As soon as they were about to turn back, the trooper pushed on to cut off and secure the boy; but he ran as fast as the whelps could, and kept up with the old one. The ground was uneven, and the trooper's horse could not overtake them. They all entered the den, and the trooper assembled some people from Chandour with pickaxes, and dug into the den. When they had dug in about six or eight feet the old wolf bolted with her three whelps and the boy. The trooper mounted and pursued, followed by the fleetest young men of the party, and as the ground over which they had to fly was more even, he headed them, and turned the whelps and boy back upon the men on foot, who secured the boy, and let the old dam and her three cubs go on their way.

They took the boy to the village, but had to tie him, for he was very restive, and struggled hard to rush into every hole or den they came near. They tried to make him speak, but got nothing from him but an angry growl or snarl. He was kept for several days at the village, and a large crowd assembled every day to see him. When a grown up person came near him he became alarmed, and tried to steal away, but when a child came near him he rushed at it, with a fierce snarl like that of a dog, and tried to bite it. When any cooked meat was put before him he rejected it in disgust; but when any raw meat was offered he seized it with avidity, put it on the ground under his paws, like a dog, and ate it with evident pleasure. He would not let anyone come near him while he was eating, but he made no objections to a dog coming and sharing his food with him. The trooper remained with him four or five days, and then returned to the Governor, leaving the boy in charge of the Rajah of Hassunpoor. He related all that he had seen, and the boy was soon after sent to the European officer commanding the First Regiment of Oude Local Infantry at

Sultanpoor, Captain Nicholetts, by order of the Rajah of Hassunpoor, who was at Chandour, and saw the boy when the trooper first brought him to that village. This account is taken from the Rajah's own report of what had taken place.

Captain Nicholetts made him over to the charge of his servants, who take great care of him, but can never get him to speak a word. He is very inoffensive, except when teased, Captain Nicholetts says, and will then growl surlily at the person who teases him. He had come to eat anything that is thrown to him, but always prefers raw flesh, which he devours most greedily. He will drink a whole pitcher of butter milk when put before him without seeming to draw breath. He can never be induced to keep on any kind of clothing, even in the coldest weather. A quilt stuffed with cotton was given to him when it became very cold this season, but he tore it to pieces, and ate a portion of it, cotton and all, with his bread every day. He is very fond of bones, particularly uncooked ones, which he masticates apparently with as much ease as meat. He has eaten half a lamb at a time without any apparent effort, and is very fond of taking up earth and small stones and eating them. His features are coarse, and his countenance repulsive, and he is very filthy in his habits. He continues to be fond of dogs and jackals, and other small four-footed animals that come near him, and always allows them to feed with him if he happens to be eating when they approach.

Captain Nicholetts, in letters dated the 14th and 19th of September, 1850, told me that the boy died in the latter end of August, and that he was never known to laugh or smile. He understood little of what was said to him, and seemed to take no notice of what was going on around him. He formed no attachment to anyone, nor did he seem to care for any one. He never played with any of the children around him, or seemed anxious to do so. When not hungry he used to sit petting and stroking a pariah, or vagrant dog, which he used to permit to feed out of the same dish with him. A short time before his death Captain Nicholetts shot this dog, as he used to eat the greater part of the food given to the boy, who seemed in consequence to be getting thin. The boy did not seem in the least to care for the death of the dog. The parents recognised the boy when he was first found, Captain Nicholetts believes, but, when they found him to be so stupid and insensible, they left him to subsist upon charity. They have now left Hassunpoor, and the age of the boy, when carried off, cannot be ascertained, but he was, to all appearance, about nine or ten years of age when found, and he lived about three years afterwards. He used signs when he wanted anything, and very few of them except when hungry, and he then pointed to his mouth. When his food was placed at some distance from him he would run to it on all fours like any fourfooted animal, but at other times he would walk upright occasionally. He shunned human beings of all kinds, and would never willingly remain

near one. To cold, heat, and rain he appeared to be indifferent, and he seemed to care for nothing but eating. He was very quiet, and required no kind of restraint after being brought to Captain Nicholetts. He had lived with Captain Nicholetts' servants about two years, and was never heard to speak till within a few minutes of his death, when he put his hands to his head, and said, "It ached," and asked for water; he drank it, and died.

It appears from a paragraph in the "Athenæum" that Mr. V. Ball, of the Geological Survey of India, has laid before the Asiatic Society of Bengal some "Notes on children found living with wolves in the North West Province of Oude." An abstract of these notes appears in a recent number of the "Proceedings of the Society." I have not been, as yet, able to refer to Mr. Ball's paper. It appears that he refers to two cases about which the following description was copied into the "Edinburgh Ladies' Journal," April 5th, 1873:—

A Strange Story.—Children Nourished by Wolves—Romulus and Remus Redivivus.

The "Amherst Student" contains a letter from Professor J. H. Seelye, dated Allahabad, India, November 25, 1872, detailing a strange fact which came under his observation in his recent travels. The letter is as follows:—

"Not far from Agra, in Northern India, is a mission station of the Church Missionary Society, connected with which is an orphanage with several hundred children, now under the efficient care of the Rev. E. G. Erhardt. The region around is infested with wolves, by which every year numbers of children are carried off and devoured. But in two instances, at least, instead of being killed and eaten, the children have been kept alive and nourished with, if not by, these beasts. Whether the story of Romulus and Remus be a myth or not, this is an actual reality, for the children themselves have been captured from among the wolves, and brought to the orphanage above-mentioned. They were both boys, and apparently of some seven or eight years of age when taken. They were found at different times, the last one in March of the present year. Some hunters, smoking wolves out of a cave, were startled when the wolves appeared by the appearance among them of a creature looking strangely human, but running rapidly on all fours like the wolves, though not so rapidly as they. He was caught with difficulty, and there was no mistaking that he was a child of human parentage, but with the habits and actions and appetites of a wild beast. The hunters brought him to the orphanage, where he was received and cared for. Though his physical form and features were sufficient to show that he was a Hindoo child, there was no other indication about him of anything human. In all other respects, he was, in the language of Mr. Erhardt, 'a perfect animal.' He

had no speech, but a whine. He would wear no clothes, tearing from him everything of the sort whenever put on. He would eat nothing but raw flesh, and lapped water with his tongue. When left to himself he would hide in some dark spot during the day, from which he would come out at night, and prowl about the inclosure, picking up bones, if any were to be found, and ravenously gnawing them. It at first seemed impossible for him to walk erect, but after much difficulty he was taught to do so, and also to use a fork and spoon, and to drink like a human being. Though treated with the utmost care, and with great patience and kindness, by the Christian hands and hearts which received him, he pined away and died after he had been in the orphanage a little over four months. In all this time he could not be made to utter a word; he was never seen to smile, nor show any signs of joy, or shame, or gratitude. But Mr. Erhardt, who gave me this account, assured me that his face looked more intelligent than the average of Hindoo children, and that his colour and features indicated that his parentage must have been in a family of high caste. The other boy I myself saw a few days since at the orphanage, where he was brought about six years ago, having been then captured, much as was the first-mentioned boy, and having shown precisely the same habits as belonged to him. He has not yet spoken a word, but has exchanged the whine, which was at first his only utterance, for sounds expressive of pleasure, and apparently also of gratitude. He no longer prefers raw flesh for food, but eats bread and fruits with ravenous avidity. He walks erect, but with a strangely awkward gait, throwing out his hands with every step. His hands are perfectly formed, but he uses them awkwardly. A piece of bread tossed to him from a little distance, which he was eager to get, he could not catch, but let it fall clumsily to the ground. He wears clothes, to which he was, at first, as averse as the other boy. His forehead is low, but his face would hardly be called dull, and certainly not idiotic. His eyes have a wild and restless, but not an inquiring look. His jaws are not protruding, and his teeth are well formed and thoroughly human. On his left cheek are scars bearing plainly the marks of teeth, where he must have been fearfully bitten. He has been taught to do some kinds of work, but not faithfully. He seems to have lost all desire to escape; he mingles freely with the other children, among whom he has his favourites. When the boy first mentioned was brought to the orphanage, this one was made to understand that he must teach the other how to eat, and drink, and walk, and much of the improvement of the younger one in these respects seemed due to the efforts of the older one."

By the kind assistance of a clergyman, a friend of mine, I have had a letter sent to the Agra Mission, and hope soon to be able to give the results. Dr. J. Murray Mitchell, of the Free Church Foreign Mission, thinking the subject worthy of

investigation has already written to some Indian Missionaries—one of them a Medical Missionary—to get, if possible, at ascertained facts bearing on the point. As no one is better able to carry on an inquiry of this kind, it is hoped that some well-sifted information may shortly be obtained.

The following paragraph appeared in the “*Edinburgh Courant*,” 14th August, 1873:—

A WOLF BOY.—A novelty, in the shape of a “wolf boy,” has just arrived at Lucknow, and has been handed over to Dr Whishaw to undergo a process of taming in the lunatic asylum. The boy, who is now about twelve years of age, was, it is said, carried off by wolves when an infant, and has remained with them until caught a short time since and recognised by his parents. At first he walked on all fours, now he walks on his two feet only; he has long hair on the head. The body is much scarred; he cannot speak or understand a single word, and his parents could not keep him because he attacked and tried to devour them at night. He tears raw meat to pieces with his teeth, and eats it as ravenously as any wolf would; he bites and snaps at anyone who attempts to touch him.—*Pioneer*.

On reading this, I lost no time in writing to Dr. Whishaw, begging him to give some information about the truth of this case, which, for the first time, seemed to have come under the observation of one of our own profession; and I am sorry in the interest of the marvellous that his reply seems to throw discredit upon the whole matter.

Dr. Whishaw's letter is dated Lucknow, January 19th, 1874. He writes:—

The boy is fourteen, and an impostor; he was made up to get money under false pretences. I found him out. He was certified to be dumb; but after he had been ten days with me he talked very well, argued, and described his life in the wolves' den. He said that the wolves resided about half a mile from the village in which his relations lived, but yet that for five years he was not discovered, nor had he the curiosity to go and see what was going on in his paternal abode.

He showed me the way in which he used to play with the young wolves. When the papa and mamma went out in search of food for the family he usually remained behind. Sometimes, however, he was allowed to go with them, and, if one could judge of the pace he could go by the specimen of it I made him show the visitors of the asylum, the wolves would have had but poor sport and a bad dinner on the day this gentleman joined in their wild sports. He knew his own name and those of his brothers. He had no callosities on his knees. He was a fearful liar. When he saw I had found him out to be an impostor he wept.

I believe never in this world has there been an instance of a child being brought up by wolves, and I cannot understand how anybody can believe in such a thing. It is a common fable in all Indo-European languages.

Other wolves occasionally visited the hosts of my friend, but they never even proposed to have him for dinner—I suppose on the principle of “honour among thieves.” He also taught us the language he used during his five years’ stay with the wolves. When he was offered a bone he ran at it on all fours with a ludicrous imitation of a dog’s bark. He said that children’s flesh was a great delicacy which he frequently enjoyed.

The majority of wolf-boys are idiots taken by their parents and left near some distant police station.

I am, dear Sir,

Yours very truly,

(Signed)

JOHN WHISHAW.

While in India I have often conversed with Hindustanis on most subjects, and am inclined to think that the idea of a child being brought up by a wolf is quite strange to those living in the Punjab, and the country between the Sutlej and the Jumna. I never lived in Oude or the Agra districts, whence these stories seem principally to have come. In like manner I have turned over a great many books of natural history. They all speak of wolves and other wild beasts killing children, but never a word of bringing them up.

The inherent improbability of a wolf not only sparing but fostering a child whom it has carried off to devour, and of a child becoming reconciled to dwell in a wolf’s den, do not require to be pointed out; but, at the same time, it does not appear that the thing is absolutely impossible, or so improbable that we ought to reject the testimony without considering its weight. If looked upon as a possible event it would likely take place in this way. A wolf who had lost her cubs, and whose maternal instinct was still excited, might, under certain circumstances, transfer it to a child. This, of course, would be a very rare event, but might now and then occur amongst a large number of instances where the children were devoured.

It must be remembered that every year in India great numbers of children are killed by wolves. In 1871 there died from snake bites and wild beasts in the Presidencies of Bengal and Madras, 16,967 persons.* There is no return

* These statistics are taken from the Annual Reports of the Sanitary Commissioner with the Government of India.

from the Bombay Presidency, but it may be said, in round numbers, that the deaths from such causes in British India cannot be less than 20,000 a year. Considerably more than half of these deaths are owing to snake bites; but of those who fall victims to wild beasts, by far the largest number are killed by wolves, and these for the most part are children carried off from villages or hamlets near the jungles. In Oude about a thousand people perish every year from snake bites and wild beasts. In 1871 the number was as high as 1,184, and the statistical returns are yet imperfect. Probably the number of children carried off by wolves in British India does not fall under 5,000 or 6,000 a year, and of these from 300 to 400 occur in Oude.

The wolf brings pieces of flesh to her cubs which she hashes down for their use, and it will not be denied that a child could live upon such food. The wolf, though a very ferocious beast, can be tamed and become attached to man. He is very nearly allied to the dog, with whom he can breed, as was known to the ancients* and proved by the experiments of Buffon and Frederick Cuvier. There are instances of domestic animals adopting the young of other species when deprived of their own; of bitches nursing the cubs of the otter, and of the cat nursing the young of the dog and even of the rabbit, which we occasionally read of in the newspapers.

General Sleeman observes, "I should doubt whether any boy who had been many years with wolves up to the age of eight or ten could ever attain the average intellect of man." This seems a fair inference, if the cases which he describes be real ones. It would certainly be one of the most remarkable facts in the nature of the human mind that, by living for years with wild beasts, by imitating their habits and yielding to the suggestions of their brutal natures, the growth of the intellect should be permanently arrested at the early age of eight or ten, and that a condition of idiocy should, as it were, be implanted by the boys sharing the wild life of a beast of prey, and this without any disease either of the sensory nerves or of the brain. This is a second improbability more startling than the first, and is opposed to what is known of the educability of the idiotic, and of the deaf and dumb.

It is clear that these Hindustani boys were actually idiots, whatever the cause of the idiocy may have been. It is not

* See Diodorus Siculus, Lib. i., cap. 88.

said that any of them were deaf, but they were all mutes. Some of them snarled or growled like wolves or dogs; one of them was never heard to speak till within a few minutes of his death, when he put his hands to his head, and said, "It ached," and asked for some water. This reminds one of a microcephalous idiot, described by Vogt, who, all his life a mute, spoke a few words during his last illness, and asked for something to drink (*trinkte habe*), named a few articles of food, and said that his head ached (*Koppe duhte Weh*).

Two of these boys could not be made to wear clothes, and one could only be got to do so with difficulty. It is to be remembered that Oude is a country where the cold is never very severe, and where many boys go almost naked. Some traces of their wolfish training are noticed. In one the front of his knees and elbows had become hardened, from going on all fours with the wolves. One case at the Agra Mission ran rapidly on all fours. Another, mentioned by Sleeman, ran nearly as fast as the wolf whelps; a third ran quite as fast as the wolf; and of a fourth it is actually said he could run so fast on all fours that no one could overtake him.

They all ate raw meat, and preferred it to other food. One fed on carrion and frogs which the boys of the village caught and brought to him. A Cashmiri, who took charge of one of those creatures, spent fifteen days in getting him to eat rice and other grain foods. One boy, when drinking, dipped his face in the water and sucked it up; another is said to have lapped water like a dog. Two of them are said to have had a very offensive smell.

The number of cases we have to deal with are nine. Of these Dr. Whishaw's one is of course out of the question. He was neither fostered by wolves, nor was he an idiot, and one of Sleeman's cases is stated to have been simply rescued from wolves. This leaves us seven, and of these one was forced out of a wolf's den by hunters smoking it; another was dug out of a wolf's den by a trooper (who had seen him run into it), with the help of some villagers; a third was seen in company with wolf whelps by two native soldiers, watching for wild boars; a fourth was seen by a shepherd, trotting on all fours by the side of a wolf; and a fifth was seen drinking along with two wolf whelps by a trooper and another man. The manner of finding the other two is not given in detail. In no case do these original witnesses appear to have been examined by the narrators. The question rests upon their credibility, for no one would probably deny that the children

had been found straying in the woods, deserted by their parents, and if we reject the testimony of the original finders, we must receive the explanation of Dr. Whishaw, that these were simply idiot boys, whom their parents had turned adrift, probably at a distance from their homes, and who had lived some time in the jungle. The statements by General Sleeman that several of these children, after being taken from wolves, were recognised by one or other of their parents, who were widows or poor people, seem to me a very suspicious confirmation of the stories. Hindustanis, especially poor widows, are very ready to claim foundling boys in India, under the hope that, brought up as their own children, they will provide for their assumed parents when they are old. I could give a striking example of this from my own experience; and it is noteworthy that those who obtained the wolf-children under the statement that they had been taken from them by wolves all abandoned them when they found that they were idiots. The Hindus would be fain to get rid of an idiot child, because he would be continually endangering the loss of caste to his parents, by eating forbidden food. One of my servants, a Chamar, lost his caste because his wife, who had gone mad, was seen to drink water from the hands of a Mussulman.

Amongst the details given by General Sleeman, there are a few ridiculous amplifications. One boy masticated bones with as much ease as meat. Of another the Rajah of Hasunpoor Bundooa said that he "had short hair over his body, but after having eaten salt with his food like other human beings the hair by degrees disappeared." It seems to me still more questionable that one of these boys "could drink a whole pitcher of butter-milk without seeming to draw breath;" for, though wolves might possibly succeed in getting salt for their nurslings, they would have little chance in getting them any practice in drinking butter-milk.

The imagination of the Hindustani is plastic; he is fond of the marvellous, more disposed to believe anything not immediately concerning his private affairs than to go and examine it. He is not a rigid and strict observer, like educated Europeans living in these scientific and critical times. His notions of veracity are lax and easy. Though having nothing like the great experience and opportunities of General Sleeman, I could have collected during my residence in India as many stories of ghosts or sorcerers, and as well attested as these narrations of children being seen with wolves. When I commenced to write this paper the evidence

on the one side and on the other seemed, as it were, to make the scales go up and down; but having applied my mind to the subject, I am disposed to think that the balance leans more to the one side than the other. We should not be, however, in too great a hurry to regard these stories as disproved. The subject seems still worthy of further inquiry, and I should be much gratified if any of you who have friends in India, or anyone who may read or hear of this paper, could procure me information bearing upon the question. They ought especially to examine into the original evidence—whether the children were actually seen or found with wolves? Whether the foundlings bear any marks of congenital idiocy, such as a saddle-shaped palate? or are subject to epileptic fits? or have heads in any way deformed? If such foundlings die, the examination of their brains might throw some light upon the matter.

This paper was completed when I heard of the article entitled “Wild Men and Beast Children,”* by Mr. E. Burnet Tylor, and I am pleased to find that my own views are confirmed by the judgment of this thoughtful writer.

Mr. Tylor cites from “Bernard Connor’s History of Poland,” a letter from the Dutch Ambassador to England, Monsieur de Cleverskerk, who was in Warsaw in 1661, where he saw a boy at a convent, who he was told had been caught sometime before at a bear-hunt. “The description he gives of him,” says the learned writer, “comes to this, that the boy was a half brutal idiot, who ran on all fours to seize the bread which was given to him. Another account of this case,” continues Mr. Tylor, “is given by Koenig, from ‘Hartknoch de Republicâ Polonicâ.’”

He says that in the year 1661, two boys were found in company with several bears in the woods of Grodno.

“One of them escaped with the bears into a marsh; but the other was taken. This boy, assumed to be eight or nine years old, went on all fours, and ate greedily such things as bears love, such as raw flesh, apples, and honey. He was taken to the King at Warsaw, and baptized Joseph. With some difficulty he was taught to walk upright. He could not learn to speak Polish, but expressed himself with a bear like growl (*murmure ursino*).”

The King gave him to a chamberlain of Posnan called Peter Adam Opalinski, who employed him to cut wood and do simple work, “but he never lost his wildness, and would sometimes go off to the woods, where the bears never molested

* See “The Anthropological Review,” vol. i., No. 1. London, 1863.

him," very likely because he had been brought up by one of their relations. I have not had time to consult the original authorities cited by Mr. Tylor; but before passing them as worthy of credit, it would be needful to examine the original testimony of those who were present at the capture of the boy, and these do not seem to be given. That a boy should be fostered by a bear seems more credible than that he should be fostered by a wolf. A bear is of much less savage temper, and is not a purely carnivorous animal.

I know for example that the bear which is sometimes still seen in the South of France can often be approached with safety. There is a story told in Mr. Atkinson's *Travels in Siberia** of two children, one four and the other six years of age, seen by their mother playing with a Siberian bear; one of them was feeding it with fruit, the other riding on its back. On the mother running up the bear quietly walked off. There is another story in Buffon's *Natural History*† of a bear confined in a cage in Nancy, becoming fond of a Savoyard boy, and allowing him to come into the cage and sleep with him. It does not thus seem so incredible that a bear should become the companion of a deserted child, and that they should become attached to one another and be found together in the woods. Thèson of a missionary whom I knew at school had also a story of a Kaffir boy being carried off by the baboons, and kept several years by them amongst the rocks. He was at last caught, not being able to climb so well as the baboons, and was brought back to his parents. He said that the monkeys treated him with a certain distinction, and always allowed him to drink first. My informant averred that this story was perfectly true, and that it happened in his neighbourhood, so perhaps it is worth repeating.

It seems probable that the *Juvenis Ovinus Hibernus* of Linnæus (a young man found amongst wild sheep in Ireland), was a wandering and deserted idiot. He is said‡ to have had

* Quoted in "Illustrated Natural History," by J. G. Wood. *Mammalia*, p. 394.

† See "Smellie's Translation," vol. vi. London, 1812.

‡ Der irländische Knabe den Tulpius beschrieben, hatte eine flache Stirn, ein erhöhtes Hinterhaupt, eine weite blöckende Kehle, eine dicke an den Gaum gewachsene Zunge, eine starke einwärts gezogene Herzgrube, gerade wie es der vierfüssige Gang gehen musste. Das niederländische Mädchen, das noch aufrecht gang, und bei dem sich die weibliche Natur so weit erhalten hatte, dass es sich mit einer Strohschürze deckte, hatte eine braune, rauhe, dicke Haut, ein langes und dickes Haar. Herder, *Ideen zur Geschichte der Menschheit*. Drittes Buch kap. vi.

“a flat forehead, the head raised behind, a wide bellowing throat, and a thick tongue adherent to the gums.” Unhappily there is no description of the “wild sheep.”

For an account of other cases of a similar kind the most accessible reference is the paper of Mr. Tylor. The same explanation seems to do for them all, that idiots have occasionally been found straying in the woods, and that people accounted for their wildness and stupidity, their want of speech, and their abnormal sense of taste, by supposing that they had been brought up by or lived in the company of wild beasts.

The notion that the cruel wolf—the terror of mothers for so many ages—or the shaggy and formidable bear had sometimes spared the innocents whom it had snatched from the cradle, or found wandering in the fields on the borders of the old forests, would be a myth agreeable to the traditions of the nursery.

The Morisonian Lectures on Insanity for 1873. By the late DAVID SKAE, M.D., F.R.C.S.E., Physician-Superintendent of the Royal Edinburgh Asylum, &c., &c. Edited by T. S. CLOUSTON, M.D., F.R.C.P.E.

(Continued from page 20, Vol. xx.)

LECTURE IV.

All the forms of insanity we have hitherto been considering have been more or less connected with the sexual organs or sexual functions and conditions, with the exception of the first and last—the epileptic and phthisical insanity. The forms which follow are mostly connected with disease of the body, affecting the brain sympathetically, or disease of the brain acting on its functions directly.

Traumatic Insanity.—The first form we come to is that of Traumatic Insanity, by which term I mean insanity brought on by *blows* or *falls* on the *head*, or by *sunstroke*.

The pathological condition of the brain and its membranes, that of hyperæmia, is the same in both; and the mental symptoms also almost identical. I include them both, therefore, under one name.

I beg to remark that I am not describing the effects of blows on the head generally—fractures, coma, phrenitis, &c., but only those cases which end in insanity.

The effects of blows on the head and of sunstroke are in some respects very remarkable. Sometimes they do not shew themselves in insanity, epilepsy, or by any other obvious symptom for many years after the blow, or sunstroke, although all this time there may be symptoms which connect the blow with the coming insanity, such as pain at the seat of the part struck, irritability of temper, and changes in the disposition. At last the insanity bursts out in some attack of mania, or in a series of epileptic fits, followed by mania.

Such a case I have under my care now. The gentleman was thrown out of a carriage in India, and landed on his head, where there was a well-marked cicatrix. After rest and care he apparently recovered, and kept well for six years, when he came home on leave of absence. Soon after his arrival here he was seized with epileptic fits, followed by a maniacal paroxysm and fury. For eight or ten days he spun round and round, from left to right—sometimes lying, sometimes sitting, sometimes on his head.

In his sane intervals it was noticed that pressure over the cicatrix on the left parietal bone produced rigidity of the right arm. The violence of this patient was of the most sudden and impulsive kind I ever saw. I have seen him while chatting pleasantly over a rubber of whist, suddenly perform a summersault over the table, upsetting everything, and if not immediately held by one or two strong men, he would have assaulted everyone right and left, without knowing what he was about.

I induced Professor Syme to trephine and remove the portion of bone under the cicatrix. I do not think we hit upon the exact spot, but half the removed portion was thickened, and the groove for the artery was shallowed. He had one of the maniacal attacks after the operation, but then they ceased, while the epileptic fits continued. After a short time he was removed and lived with his friends for thirteen months, but as the fits continued to recur, and slight family causes annoyed him, he came back voluntarily, remaining sane, with one or two trifling exceptions of a transient kind, for some six or seven years, and suffering at monthly intervals from fits, which, however, were diminished in frequency and violence by the regular use of the bromide of potassium.

In another case the patient sustained a severe contusion of the hinder part of his head without fracture. This was followed by phrenitis, and this, as it passed off, left the patient insane, with morbid symptoms of pride, extreme optimism,

and delusions of exaltation, such as that "he is a master joiner, that he is so successful at his trade, that he will soon earn upwards of £150 a week."

This man was soon afterwards removed, and his subsequent history was not traced.

In another case an intelligent boy of 5 years of age was struck with a ruler behind the ear by his schoolmaster. There was swelling and ecchymosis, but no fracture. The boy became stupid and silent, ceased to speak for a time (some six weeks), then began to talk nonsense, and gradually became noisy at night and a great swearer; very violent, and of dirty habits. After 11 or 12 years, getting gradually worse, he took a succession of epileptic fits and died.

In another case a sailor received a violent blow on the head, followed by several attacks of insanity both at sea and on shore.

Before admission he had followed a gentleman through the streets with a knife and threatened to stab him.

He expressed the following delusions:—That he was a descendant of the Royal family; that another man's wife was his wife; that the souls of other men took possession of him, and his soul possessed them.

He gradually deteriorated, and became more and more incoherent, although he still retained his delusion as to his high descent, and the belief that he must kill somebody.

The cases of insanity from sunstroke are very like those I have described. At first maniacal, then moody, suspicious and distrustful, fancying that they are persons of high rank. I had an Earl of Dalhousie and afterwards a Duke of Gordon, both Indian officers. The Duke was very dangerous, attempting to approach his attendant with a knife or poker concealed behind, determined to "have a life," as he always said, which he considered to be necessary for him as the possessor of the "Sword of Justice," a special gift belonging only to the head of the Gordon family.

One more characteristic case, and I finish. A young officer, then in India, became insane after sunstroke, and continually complained of his fellow officers poisoning his food. To avoid this annoyance they persuaded him to sell out. He took his passage from Calcutta for England, but the passengers seeing his insanity refused to travel with him, and the Captain landed him at Madras, giving him back half his passage money. After waiting some time he got a passage by a sailing vessel to England, and on his way

home, he felled the mate of the vessel with a large mallet, was put in irons, and on his arrival was handed over to the authorities to be tried, being in the meanwhile placed in Newgate. On the interposition of his relatives, he was released and put under my care. He was generally morose, but joined in the amusements of the other patients, playing cricket, billiards, bowls, and taking long walks, but he never lost sight of the necessity laid upon him to kill somebody. He left me, and has boarded in various houses in the country under the charge of an attendant, upon whom he has made some murderous assaults.*

These cases were drawn from the records of my own cases in the Royal Edinburgh Asylum. They, and a few others, are given at greater length in the "Edinburgh Medical Journal" for 1866, in a very good paper, in which the writer sums up his conclusions as follows:—

1st.—That traumatic insanity is generally characterised at the commencement by maniacal excitement, varying in intensity and duration.

2nd.—That the excitement is succeeded by a chronic condition, often lasting many years, during which the patient is *irritable, suspicious, and dangerous* to others.

3rd.—That in many such cases distinct homicidal impulse exists.

4th.—That the characteristic delusions of this form of insanity are those of *pride, self-esteem and suspicion*, melancholia being very rarely present.

5th.—That this form of insanity is rarely recovered from, but has a tendency to pass into dementia, and to terminate fatally by brain disease.

6th.—That the symptoms, progress, and terminations of insanity resulting from traumatic causes, are sufficiently distinctive and characteristic to entitle it to be considered a distinct form of insanity.

Rheumatic Insanity.—The next form of insanity in my table is rheumatic insanity—a form which has, I think, been long recognised as a distinct disease. I was myself one of the first to recognise the connection between those two diseases and induced an assistant of my esteemed predecessor, Dr. Mackinnon, to write his thesis on this subject when he became an F.R.C.S.E. in 1845. I think the thesis was not

* A characteristic and most interesting case of "Traumatic Insanity cured by Trephining," is recorded by Dr. C. Holland Skae, in the "Jour. Ment. Sci.," for Jan., 1874.

printed, and we cannot, after a careful search, recover it. I know it adduced a number of cases from the records of the Edinburgh Asylum in proof of the frequent connection between insanity and rheumatism.*

We shall, however, consider the rheumatic, choreic, gouty, and metastatic forms of insanity in succession, they having a strong resemblance to each other, not so much in their symptoms, as in their direct dependence on bodily diseases whose manifestations are ordinarily confined to the joints or other parts, but that seem in those forms of insanity to leave their usual habitat, and attack the brain. The first and the two last form Dr. Batty Tuke's class of "Metastatic Insanity."

Rheumatic Insanity is a comparatively rare form of mental derangement, but one of the greatest interest pathologically, and on account of a singular combination of bodily and mental symptoms. It is one variety of what has been called cerebral or cerebro-spinal rheumatism. As he mentioned in the first lecture of this course, Dr. Skae's attention had been directed to the connection between insanity and rheumatism in 1845. Griesinger and Flemming were the first to illustrate this connection by the publication of well marked cases. Without entering upon the general question of cerebral rheumatism, I shall describe the symptoms that may be deemed characteristic in the cases that can be properly reckoned insane: but the real interest of the disease consists not in a consideration of these cases by themselves, and still less in an exclusive attention to the mental symptoms present in them. The chief interest of cerebro-spinal rheumatism lies in the fact that it is an example of an affection, whose ordinary symptoms and course are well known, assuming an entirely new form, in which it attacks the whole of the nervous centres.

The ordinary course of an attack of rheumatic insanity may be thus described:—A patient labouring under acute or sub-acute rheumatism suddenly ceases to complain of the pain in the joints, and simultaneously shows signs of mental excitement of a peculiar delirious type. At first external impressions from the senses seem to produce no effect on the brain. The patient takes no notice of what he hears or sees, and ceases entirely to suffer or fear pain. To this succeeds intense delirious excitement, with violent ungrounded fears, and an utter carelessness of the consequences of jumping through

* The portion of these lectures finished by Dr. Skae ends here.

windows, or throwing himself against walls or anything of that sort. He does not sleep. As he improves, which usually takes place in a few days, there is sluggishness and torpor and confusion, sometimes depression of mental condition, with suspiciousness, taciturnity, and languor, the whole course of the disease lasting from one to two months. When the patient recovers he has no recollection whatever of anything that has occurred from the time he was lying suffering from the swollen and painful joints. The period of his attack has been a blank to him.

Such are the purely mental symptoms, but accompanying these, beginning along with them, varying in their intensity as they vary, and passing off as they disappear, there are a series of most interesting bodily symptoms referable to the nervous system. At the time when the first mental symptoms appear the swelling of the joints begins to abate, but the high temperature continues. At the same time choreic movements of almost all the voluntary muscles in the body commence, and sometimes are so violent that the patient cannot remain still for a moment. His features are contorted, his head jerks from side to side, his limbs are thrown about, and his body is raised up and down. Those movements follow the mental symptoms in their intensity generally, but do not disappear so soon. Sometimes they persist for some time after the patient is quite well in all other respects. Along with the choreic movements hallucinations of the senses show themselves. Bright dots are seen before the eyes at first. One of the patients saw an old woman who came and ate her food, and affirmed that one of her feet was cut off; another said his food tasted like poison. The power of voluntary movement is always very much interfered with by the chorea, but in one of the cases the violent choreic movements of the legs was succeeded by complete temporary paralysis, showing that the former was from the same cause as the latter, and only a preliminary stage of the morbid pathological condition. The bladder was paralysed in one of the patients, requiring a catheter to be used.

The reflex action of the spinal cord is increased at the beginning, then deadened, and during the paralytic stage is quite abolished. The common sensibility is usually increased at one stage of the disease, or appears to be so, but this cannot be accurately determined on account of the mental state of the patient, being more of a subjective symptom, and being difficult to distinguish from heightened reflex excitability.

One of the patients had a sensation of heat in his legs during convalescence, showing a condition of hyperæsthesia.

The last function of the nervous system affected in those cases is that of nutrition, as evidenced by the very great tendency to the formation of bed sores during the paralytic stage. As all the symptoms tend to become relieved the temperature falls, but this is down to its normal rate long before the chorea, &c., disappears. The great acidity of the urine present during the ordinary rheumatic symptoms remains during the height of the nervous affection, and passes away along with it.

No one can doubt that the insanity and the other nervous affections existing in those cases are all due directly to the rheumatism, which thus is the cause of a specific and defined neurosis. Does this result from a metastasis of the rheumatic affection of the joints to the nervous centres? Undoubtedly this is usually the case, but it does not follow that the rheumatic condition is confined to either of them exclusively. In one of the patients we had, who laboured under this disease, she had a slight relapse of the symptoms when she was nearly well, and she had at the same time swelling of one hand, and also aggravated choreic movements, sleeplessness, and an increase of temperature.*

Can we form any legitimate theory as to the pathology of this disease from its symptoms? We know that the rheumatic condition or poison, whatever it is, has a special tendency to attack the connective tissues, causing transitory inflammation, infiltration, and loss of function in the parts adjacent. Do not the symptoms I have described indicate a serious but transitory interference with the functions of the nerve cells and fibres of the great cerebro-spinal centres, such as might be produced by slight rheumatic inflammation and infiltration of the connective tissue, causing pressure on the nerve elements? The raised temperature, the strongly acid urine remained the same whether the rheumatic inflammation was in the joints or in the cerebral nervous system; but when this inflammation had passed away the delicate nerve mechanism was, of course, long in perfectly regaining its functions. We formed and expressed this theory in regard to the pathology of the disease three years ago, and a case under care at present seems strongly to confirm it. It is that of a woman who had an attack of rheumatism

* "*Jour. Ment. Sci.*," July, 1870.

followed by rheumatic insanity some years ago, but instead of recovering as the other cases did whom we had seen or read of, she remained permanently paralysed in her legs, with choreic movements of her arms and face, and her mental state one of torpor and vacuity, and of this condition she is now dying. No doubt in her case the rheumatic infiltration of the connective tissue has proceeded to such an extent as to injure permanently the nerve elements.

Rheumatic insanity is ordinarily a very curable disease, running a short and remarkably definite course.

It may be pronounced as, next to general paralysis, the most distinct and true disease, as to symptoms, cause, and pathology, of any of the forms of insanity.

Choreic Insanity.—The form of insanity connected with chorea is in every way allied pathologically as well as in its symptoms to the rheumatic insanity. The intimate connection of chorea with the rheumatic condition, first pointed out by Dr. Copland, is becoming more and more an accepted belief in medicine. Chorea itself has been very correctly described as an insanity of the motor centres. Certainly no condition of those parts of the central nervous system which regulate and control muscular movements is so analogous in every respect to the state of the brain convolutions in insanity, judging from the symptoms present. It is generally believed that St. Vitus's dance may occur without any mental impairment, but some authors doubt whether this is ever so. Dr. Arndt, a very competent German observer, who has devoted much attention to the subject, "does not believe in the existence of chorea without more or less simultaneous affection of the intellectual faculties. The abnormal movements are mere symptoms of a much more extensive disorder involving the entire nervous system, and never confined in their effect to the spinal cord. The so-called pure chorea, in which mental symptoms are said to be absent, but in which they are in fact only feebly manifested, is really the mere fore-runner of a more freely pronounced psychosis. But just as every morbidly depressed emotion and every morbid exaltation of consciousness does not necessarily lead to melancholia, mania, or dementia, so neither does chorea."*

But be this as it may, there is no doubt that chorea is very often accompanied by a marked form of mental derangement.

* Dr. Sibbald's translation in "Jour. Men. Sci.," Jan., 1870.

Dr. Maudsley has described it very well, and most of us have had occasion to confirm his views from our personal experience. He even recognises and describes a form of insanity in children, as choreic, which is accompanied by none of the motor symptoms of chorea. He thus describes choreic insanity or choreic delirium. "What is sufficiently striking even to an ordinary observer of this delirium is its marked incoherency, and the manifestly automatic character of it. It might, indeed, appear that the cells or groups of cells of the primary centres had been dislocated from their connections, and that each cell or group of cells was acting on its own account, giving rise thereby to a sort of mechanically repeated and extremely incoherent delirium. A boy of about eleven years of age, who came under my care, was, after a slight and not distinctly described sickness, suddenly attacked with this form of delirium; he moved about restlessly, throwing his arms about, and repeating over and over again such expressions as—"The Good Lord Jesus." "They put Him on the Cross." "They nailed His hands," &c. It was impossible to fix his attention for a moment. As far as could be made out, there was considerable insensibility of the skin over certain parts of the body. In two days, after appropriate treatment, the delirium passed off, and the boy was quite himself again. This may be regarded as the type assumed by the acute form of choreic insanity, and you will see how extremely like it is in its general features to the rheumatic insanity with chorea. In fact, the two diseases are the same, both being primarily dependent on the rheumatic conditions, in the one case occurring in childhood without any actual arthritic rheumatism, in the other in more advanced life as a part of such an attack, with the fever and inflammatory symptoms that characterise it.

In proof of this theory, one of our cases of rheumatic insanity had had two attacks of chorea previously—one at the age of seven, caused by a cold, and another at the age of thirteen. He was nineteen when he had the attack of rheumatism succeeded by the rheumatic insanity.

The acute choreic insanity of infancy and youth, like the rheumatic insanity, is ordinarily a very curable disorder, and of short duration.

There is a form of insanity, or rather mental imbecility, that accompanies, and results from long-continued chorea, of a different kind from the one we have been describing. It is, in fact, the ordinary dementia that follows all long-con-

tinued mental derangement. It results partly from arrested development of the brain, and partly, no doubt, from degeneration of its structure.

There is still a third variety of what may properly be called insanity with chorea, viz., that exemplified in those wonderful epidemics of St. Vitus' dance, affecting thousands of persons by a morbid sympathy and imitation, that used to occur in the middle ages.

Podagrous Insanity.—This is a rare disease—more rare than that of rheumatism. The occurrence of various nervous and mental symptoms has been mentioned by all writers on gout. Sydenham particularly mentions them.

He says, "The body is not the only sufferer, and the dependent condition of the patient is not his worst misfortune. The mind suffers with the body, and which suffers most it is hard to say. So much do the mind and reason lose energy, as energy is lost by the body, so susceptible and vacillating is the temper, such a trouble is the patient, to others as well as himself, that a fit of gout is a fit of bad temper. To fear, to anxiety, and to other passions the gouty patient is the continued victim, whilst, as the disease departs, the mind regains tranquillity."* He also mentions deep melancholia as occurring in the course of the disease. I mention these because, as a general rule, all the neuroses that occur in the course of any disease have borne relation to each other, and the irritability so well described by Sydenham is just as much the result of the gouty poison or condition, acting on the brain convolutions, as the real insanity I am about to describe. The purely nervous symptoms are better known and more referred to in medical literature. The neuralgia, the paralysis, epilepsy, hysteria, and apoplexy, all these show the occasional tending of the disease to attack the nervous system. Garrod describes "Gouty Mania" as occurring immediately after the cessation of the affections of the joints, and as being characterised by acutely maniacal symptoms, with heat of head and fever. In one such case which he mentions, all these symptoms at once disappeared when one of the great toes became hot and painful. Such cases appear never to require asylum treatment. The slighter cases rapidly terminate favourably, and the more severe cases assume the form of congestion or inflammation of the membranes of the brain.

This form of mental derangement, having been hitherto

* ("Syd. So. Trans.," Vol. ii, p. 128.)

viewed as a mere complication of gout, the psychical symptoms have not been so minutely described as is desirable, and require further clinical elucidation, but on the whole, Trousseau's description of it is the best, because he simply describes the cases he had seen. One of his cases,* a man forty years old, of good constitution, who had been subject to regular attacks of gout from the age of twenty-five, began to take anti-gout medicines regularly on the coming on of the paroxysm. The patient, at the end of some years, instead of having the ordinary irritability and lethargy accompanying the attacks, became quite maniacal, and as the gout became chronic and atonic, he became brutish and demented without paralysis, and died in a state of coma. He mentions two cases of the apoplectiform metastatic gouty mania which were produced by the sudden application of cold water to the gouty feet, and relieved by sinapisms to the feet.

Comparing the rheumatic and gouty insanity, so far as the imperfect clinical history of the latter will enable us to do so, we see that the points of resemblance are the metastatic character of both, and the decided feverishness that ushers in the attacks, being the ordinary fever of each disease continued on during the cerebral attack, even when the local affections cease; the points of difference are the absence of chorea in gout, and the presence of an apoplectiform congestive condition instead. The rheumatic affection always has cerebrospinal symptoms, the gouty cerebral alone. As we have hazarded the theory that the former is due to an affection of the connective tissue between the cells and fibres of the brain and cord, the latter seems to be due to an affection of the membranes of the brain, and this is confirmed by the *post mortem* appearances of one of Trousseau's cases, where there was infiltration of the membranes, serous effusion under them, and some adherence of them to the brain substance.

Metastatic Insanity.—An outbreak of insanity immediately following, and apparently caused by, the sudden stoppage of a chronic discharge, the healing of an old ulcer, the curing of hemorrhoids, the non-appearance of the usual symptoms of ague when it should have occurred—insanity in all these circumstances has been described, and we have ourselves seen more than one of those forms. Such attacks, no doubt, from their having an appearance of mystery, and admitting of any sort of recondite explanation which

* Trousseau, "New Syden. Soc. Trans.," Vol. iv., p. 384.

the ingenious fancy of the writer could invent, were great favourites with the old authors. They were one of a series of phenomena which held the place in their works which the sympathetic system of nerves and mesmerism do in modern times. No one can possibly refute any possible theory about them. Such theories even sound psychologists will say are absolutely indispensable in this, still not quite perfectly, scientific age. But the facts in regard to metastatic insanity were no doubt in the main correct, if the theories by which they were explained were doubtful.

The ordinary symptoms of metastatic insanity are those of sudden acute mania approaching delirium, preceded by fulness and pain in the head, and accompanied often by feverishness, full pulse, and some of the symptoms of inflammation of the membranes of the brain. In the case of attacks following the sudden disappearance of erysipelas they are distinctly inflammatory in their origin. We once had a woman as a patient in whom the symptoms were those of melancholia, after the healing of an old-established ulcer of the thigh; but such cases of depression are rare. In that case no artificial counter-irritation had any effect in benefiting the mental symptoms, but at the end of a year the ulcer broke out afresh, and she soon got well.

The ordinary acute metastatic cases with maniacal symptoms are of short duration, the brain being apparently excited into abnormal activity, more by some reflex influence than anything else; but when there are inflammatory symptoms present the cases assume a very much graver aspect. Such cases as that related by Esquirol, of a girl in whom menstruation had been suddenly stopped, and who recovered her senses immediately the catamenia began to flow, belong to the metastatic group of cases rather than the amenorrhæal. All these cases are strictly analogous to those in which attacks of epilepsy supervene immediately after the healing of ulcers, &c. In both cases no doubt there is a predisposing cause in the central nervous system being very excitable and unstable in its equilibrium, but in the one set of cases the cerebral convolutions are the weakest point, and in the other the medulla oblongata or such other purely motor centres.

(To be continued.)

*Red Cotton Night-Cap Country, or Turf and Towers.**—A Psychological and Medico-Legal Problem. By J. H. BALFOUR BROWNE, Esq., Barrister-at-Law, &c., &c.

Everything that Mr. Browning writes has claims upon the attention of those who study the philosophy of mind. There may be some difference of opinion as to Mr. Browning's position as a poet; it may be argued that, simply regarded as possessed of poetical faculty, he must be looked upon as inferior to many other writers of poems in these fecund days; that much that he has written in rhyme would have been as readily communicable in prose; but there can be no difference of opinion as to Mr. Browning's exceptional mental vigour and calibre, nor can it be denied that very few men of equal capacity have either in this or in other ages devoted themselves to imaginative literature.

Mr. Browning is a man of extraordinary mental power and no little mental nimbleness; he is a deeply read and deep thinking and seeing man, but his whole mind is under the strait-laced discipline of logic rather than the influence of the arbitrary libertinism which seems to us an attribute of the mental life of the poet. It is true that the highest amount of the erraticism of imagination is compatible with the strictest attention to the goose-step of routine which constitutes a real intellectual existence. But although there are instances in which men have been able to scatter themselves in the God-like eclectism of imagination, and who were yet close compacted for all the purposes of reason—and Bacon was one of these—this combination in anything like equal proportions is by no means common. True, every man is more or less of a poet and more or less of a reasoner. He who warms to the words of Shakespeare, only warms because he has some of that capacity which Shakespeare had. He and the poet are kin. So the man who follows an argument of Aristotle's is Aristotle's fellow. But although each man is truly a poet, and although each man has in his life done something which proved his kinship with those men who have filled the nave of time with chants and hymns, very few men are so full of this song-impulse that it torments them until they utter, and it is only under such circumstances that we have true, spontaneous song as a gift, not so much of the individual as of

* "*Red Cotton Night-Cap Country, or Turf and Towers.*" By Robert Browning. London: Smith, Elder, & Co. 1873.

Heaven itself! No wonder that men fabled the Muses! No wonder that we still speak of the inspiration of the poet! A voice seems—even to himself—to sing through him.

“He sings but as the linnet sings,
That on the green bough dwelleth;
A rich reward his music brings,
As from his throat it swelleth.”

But, as we have indicated, it is our belief, that few of those who write poems are thus forced into the service of song. Most men are not seduced by the Nine, but have to woo them with assiduous attention. To most the writing of poetry is difficult, somewhat mechanical work, to which five tapping fingers and a rhyming dictionary are not unnecessary adjuncts. Even from these painstaking poets, good work is, on occasion, obtainable. But the result always bears some marks of the plodding method of production. Poets then seem to me to be easily distinguishable into two classes. First those who are real, true poets, who are gifted with the fire of genius, and in whose poetry we find the elements of arbitrariness and spontaneity strongly marked. Second, those who are possessed only in a small degree of this real poetical faculty, yet who have, Prometheus-like, stolen some portion of the fire of genius, in spite of the gods, and in whose poetry there are indications of that effort and acquisition which went to its making.

Now in our judgment Robert Browning is one of the latter class, and yet he is perhaps as highly an endowed member of that class as any, and where regard is paid to his whole mental life, a mighty giant in comparison to many of the sweet-voiced dwarfs who might have to be placed in the higher class. But we have here to do with Robert Browning rather as a thinker than a singer. Were we estimating his worth as a poet, much exquisite beauty, much delicate sweetness, many excellent pictures, which give his readers glances, with all the distinctness of a stereoscope, and yet with pleasant varying lights and shadows which make his pictures live, would have to be noted in connection with his poem, “The Red Cotton Night-Cap Country.” At the same time a doubling tortuous style, as curiously twisted as the “pipy wreath-work of the worm” he mentions, a use of permissible but scarcely expedient new words, such as “branchage,” “concurive,” “artistry,” and the like might have to be alluded to with regret, but a critic, whose duty it is always

to look at a work as an æsthetic whole, may still be allowed to have predilections for the peddling minutiae of artistic criticism. As a thinker, however, as we remarked above, Mr. Browning's works are full of interest to the student of philosophy. Few men know the workings of human thought so well as he, and few men are able to bring these thoughts in their intricacy before readers with so much clear, high power as the author of "Bishop Blougram's Apology," or "Caliban in Setebos."

However much medical psychologists may argue that the metaphysical method of studying mind is useless, however much they may declare that the method of self-introspection and self-study by consciousness has been productive of most baneful results in the progress of the science of mind, it is certain that as both Goethe and Novalis have said "Man is ever the most interesting study to man," and that it is the mental nature of man, the thoughts he thinks, the emotions he feels, the wills and desires with which he works upon the world that constitute the chapters of the book which human beings read with the deepest interest and the greatest profit. It is because Mr. Browning is an anatomist of the very inmost spirit of humanity, because he understands the thoughts, the hopes, the doubts, the difficulties of men, who are the battle-fields of high impulses and low and fleshly lusts; because he knows how the heavenward hopes and aspirations are corroded by the rust of meanness and selfishness, and knows how all these manifestations are modified by the circumstances which constitute a man's environment in time or space that he is read with deep attention and no little benefit by one of the most intelligent circle of readers which any man could gather about his books.

In the work before us there are many deep, clear glances into many dark places in the sphere of human thought, but we mean to confine our attention to the character of the hero of the story which runs throughout this, at times, discursive, almost sprawling poem, as it is developed by Mr. Browning, and make one or two remarks upon the question which sums up the didacticism of the work—was Léonce Miranda sane or insane?

It matters not to us, here, whether the circumstances which are described by Mr. Browning actually occurred or not. It would appear, from his statement, that the events he speaks of actually occurred in "Sea-coast-nook-full Normandy," and that these events were the subject of judicial inquiry by

a civil tribunal at Vire, when the question of the validity of a will which had been made by the said Léonce Miranda had to be decided. To us it is simply, as it was to Mr. Browning, a psychological problem. He may have derived his knowledge of the facts from the newspapers; we take the facts from him. He arrives at the conclusion that Léonce Miranda was not mad, and the Court at Vire decided in the same way. We gather this from the words that follow the expression of the gardener's opinion, who found the dead body of Léonce, that the deceased was mad.

"No! sane, I say.

Such being the conditions of his life,
Such end of life was not irrational."

Now it is upon this we join issue. To us it seems that Léonce Miranda was mad, and we shall endeavour to prove this proposition from the poem.

The story is simple, and can, as its author says, be told in a flash.

Léonce Miranda was the son of a wealthy jeweller and goldsmith of Paris. His father had a house in Paris and one in Normandy, near St. Rambert, and was a devout man. Not, however, without some practical capacity. Léonce, however—

"At his birth,

Mixed the Castilian passionate blind blood,
With answerable gush, his mother's gift
Of spirit, French and critical and cold."

And so far one can hardly say that there was any hereditary psychosis to account for the insanity of Léonce. In his own life, then, must we seek indications of insanity, as well as the causes of such aberration, if perchance these may be discoverable.

Léonce was brought up bulwarked about by faith, and his education made him a believer in stupid miracles, and even at the age of twenty-two, when men have generally got rid of the plethora of the nursery by means of the wholesome emetic of doubt, he was still a blind, unquestioning believer in the stories that the Deity manifested itself by carrying images about from one place to another and curing diseases, the existence of which, in the first instance, was doubtful, if the cure was well authenticated; and if the opportune existence was unquestioned, the cure was more than dubious.

"These facts, sucked in along with mother's milk,
Monsieur Léonce Miranda would dispute,
As soon as that his hands were flesh and bone,
Milk-nourished two and twenty years before."

This of itself seems indicative of mental weakness. One can understand children and old people believing in such tales even in this 19th century, but one expects the strength of manhood to be independent of such fribble mythology, to stand firm in some faith without the aid of drivelling legendary stories of ridiculous cures and saintly interference with the fecundity of Queens and Duchesses.

The strength or weakness of a mind dominated by a belief must be estimated not merely by the inherent absurdity of the tenet, but by a consideration of the average belief of men similarly circumstanced. What was rational in the middle ages would be insanity now. The condition, then, of Léonce's mind, as arrived at from the fact that it was ruled by such ideas, is to be taken in connection with the fact of his training by a mother—

“A daughter of the Church,
Duteous, exemplary, and severely right.”

Now early training may influence a man either positively or negatively. He may, if he is clay in the hands of the circumstances which are brought to bear upon him, become what he is desired to be—the puppet moved by the strings of another's will; or he may, if he have the resistance and elasticity of steel, seem to yield, and yet in the inevitable rebound assert a position the very opposite of that which it was endeavoured to impose upon him. Occasionally we find boys following closely in the footsteps of their parents, but much more frequently in these days of current opinions we find that the son is in an opinionative antagonism to his father. It is after a man has passed middle age that the influence of early training asserts itself in a man who has real intellectual vigour. To a searcher authority is intolerable, and every young man ought to be a searcher. But, after all, not more is to be made of Léonce Miranda's religious beliefs than that they seem to indicate considerable weakness—as yet there is no indication of morbid development. But closely upon the description of his devoutness follows an intimation of the animal manhood of the youth—

“He understood the worth of womankind
To furnish man—provisionally—sport.”

And thus occurs a slight indication of mental disease. Throughout Léonce is described as—

“Exuberant in generosities
To all the world.”

And, yet, in that "provisional sport," in that hunt "bent on Boulevard game," he—

"Was prudent in his pleasure—passed himself
Off on the fragile fair about his path,
As the gay devil rich in mere good looks ;
Youth, hope—what matter though the purse be void ?"

He was mean in his amours. But a man who is mean at most times will be generous then. Generosity under such circumstances is only selfishness under a mask. But men who have given themselves over to lust forget, for a time, to draw close the constringing cords at the mouths of their money bags. A man who is generous to all mankind, who in later years is known as an universal benefactor from whom those who ask may have, and who yet treats the girls whose bodies afford the "sport-provisional" to lemonade, and who, in his own words, combines "amusement with discretion," is somewhat anomalous in his mental constitution. Yet to say that a man is anomalous in his mental constitution is only to say that a man is insane. We only judge sanity by the experience we have of the ordinary conduct of ordinary (sane) men. But other proofs are at hand. He falls in love with a suddenness and impetuosity which is but in poor keeping with his "realistic and illusion proof" existence. The instantaneous and absorbing passion which enthrals body and soul, and to which any sacrifice of endeavours, of wealth, of reputation, seems but small, was scarcely to be expected from the prudent youth who made amusement and discretion go hand in hand. This is a mad episode. He goes at New Year's time to "The Varieties," and sees a woman, Clara de Millefleurs, alias Lucie Steiner, alias Muhlhausen, in a neighbouring box. To see is to love. To love is to rush after her from the theatre, to precipitate himself at her feet on the pavement as she alights from her carriage, and to declare a love which, although it has come so quickly, does not go soon, but stays with him for twenty years, until, indeed, his dire, unhappy, insane death. Sane men may fall in love, and the very word "fall" shews that, in most men, getting into love is like diving off a pier, and not like walking over a shelving shore into the deepening waters. But such suddenness as this is rare, and when love comes so quickly it pays but a flying visit. In this then, again, we see symptoms of disease. The man was out of health. The prudence which had made him indulge in penurious passion is now forgotten, he is lavish of his money, of his time, of

his labour, of his life. Nothing so clearly marks the inception of a mental disease as a change in character at a time of life when the equilibrium of disposition ought to have become stable, without adequate cause. No symptom has more diagnostic value than this, and we cannot but think that this sudden change was one which owed its origin rather to diseased organism than to the slow changes of persuasion, of accumulated and aggregated feelings which go to constitute the psychological condition of love in a healthy man. But in this dream of love five years slip away. It is always so in tracing the history of a case. Long periods of time are, or seem to the idle observers who have no knowledge behind their eyes, to be empty of events. But much which, to a wise observer, would seem significant happens in these blank unrecord-yielding times. Five years elapse, and then Madam Miranda takes it into her head to rate and scold her son Léonce about his extravagance. Of course she alludes to his "reckless life," the "morals which at first distinguished" him, that "reprehensible illicit bond." This strikes one as a little unfair upon the part of Madam Miranda. After that lapse of time it was scarcely fair to begin to preach morals to her son, especially as she admits concerning herself and husband—

"We, in a manner, winking, watched consort—
Our modest, well-conducted, pious son—
With Dalilah; we thought the smoking flax
Would smoulder soon away, and end in snuff.
Is spark to strengthen, prove consuming fire?"

No wonder mother and son quarrel, but some wonder certainly that after a scolding from his mother, Léonce Miranda, a man of thirty by this time, should fling out of doors, and then fling himself into the Seine. This is not sane action, but very insane action it seems to us. But his bodily health is shattered, for after this dip in the chilly river, rolling big and muddy with autumn rains, he is "'twixt life and death," and raving for a month. Then he returns to Clairvaux, the place in Normandy, and again his world is horizoned by the outlines of the woman, and he is content. But the calm of his peace is broken by a summons to Paris. He answers the call to find his mother stark and cold, draped in the "ghastly velvets of the grave;" to hear some priest say in the flickering stillness of the death chamber that he caused his mother's death, and to fall at the bed-foot robbed of sense and life. But only for a time; back came thought,

but thought dishevelled; first he raved, then suddenly got calm and business-like. This was unnatural in itself, but his subsequent actions even more markedly point to mental aberration as a cause. He renounces sin, and provides that a decent subsistence shall be given the woman whose life had been so parallel to his. A week after this calm disposition of his own affairs we find that a common doctrine of the Roman Church has taken a false hold upon his soul. This is the doctrine, in Browning's words:—

“Pain to the body—profit to the soul;
Corporeal pleasure—so much woe to pay
When disembodied spirit gives account.”

So Léonce having read old love letters, bending over the fire thrusts these into the grate, and holds his hands there with them, crying—

“Burn, burn, and purify my past,” said he,
Calmly, as if he felt no pain at all.”

Here we have a really mad act. His hands are burned to the bone. He struggles fiercely with those who restrain him from the fire, desiring to make his hands a real holocaust—all with the view to this ideal purity. Now some might say, as Browning seems to say, “Is this not a rational outcome of the Roman creed?” “Pain, be thou my pleasure,” they would say. But we can scarcely regard it as the rational consequence of the tenet. The worst doctrines in healthy minds do no harm. Trust a kind nature with the same principles which were the foundation of the Inquisition, and not a hair will be injured, not a pain will be suffered. Wise men can bear the most absurd religions with practical wisdom through this complex world. All the doctrines of Rome will not make a practical man who professes its creed believe in a now-a-days miracle. He will wink at stories of winking virgins, and when he is ill he goes to his medical man, and not to his priest; he has resort to drugs rather than to supplications. But in weak minds, who just on account of that weakness are less able to shape their conduct's course through the shoals and quick-sands of circumstances and events, who are really insane simply because their intellectual life is not in real relation to the external world, these beliefs, which are innocuous to health, are particularly baneful. We cannot, therefore, regard Léonce Miranda's act as a rational result of the ascetic creed which he professed, believing as we

do that the asceticism of the creed is always in a healthy mind modified by consideration of the necessary care which a man must take of his body, the necessary comfort which he must secure for his physical nature, so as to maintain life, considerations which are impressed upon him by Nature herself, and which the Church of Rome has never discouraged. The man who takes metaphors literally would be rather confused in life, and would be regarded as simply a fool; he, therefore, who in a frenzy thinks to purify his spirit by burning his hands to the bone is surely a simpleton. Léonce Miranda's physician, Dr. Beaumont, is a man of sense, and argues that the anæsthesia which Léonce laboured under is a proof of the existence of insanity.

"Mad, or why thus insensible to pain?
Body and soul are one thing with two names,
For more or less elaborated stuff."

Whether that be or be not the new *Religio Medici* there is little doubt that the insensibility to pain is very frequently an indication of mental disease. Take the mind away altogether, and you may vivisect the body without causing one throe. Enthusiasm sometimes does this for a man. The whole light of consciousness is concentrated upon one object, the limbs are not the man's, and you can pinch them and he does not know. Madness often does the same. It gives man a chloroform which enables him to suffer the surgical operation of the great surgeon, Death—the excision of a soul. And so in Léonce Miranda the anæsthesia was, as his medical man surmised, not an insignificant symptom in arriving at a conclusion as to his mental condition. After this then he "raved himself to rest," lay "three long months in bliss or bale inactive, any how," and whenever he was better he rose and drove to Coliseum Street, and there was clasped in the embrace of her who—

"Knew what love was, knew that he loved her."

Here again this shows the weakness of his mind. Weak minds hold opinions limply. Shake them, and their creeds are changed. And here is the Léonce who was so moved by the death of the mother he loved as to vow a change of life, in whom religious feeling is not yet dead, here is he who is supposed to have had strength of will enough to hold his hands into the purging fire, who at once upon his gain of but a little strength creeps back to his old love and lust again.

Looked at in the light of insanity this change is explicable enough. The insane man is under the influence of insane grief just now, but anon he will laugh until the wine-tears of joy chase the poison tears of sorrow from his cheek. This is the very quality which we have ascribed to mental aberration. The external world is no longer directly causal of internal impressions. The brain, by reason of disease, is no longer *en rapport* with the universe, the pre-established harmony, to use the Leibnitzian phrase, no longer exists; thought, and therefore conduct, has lost its relation to circumstances. The conduct of Léonce, on the supposition of insanity, is very easily understood in its irrationality. All the arrangements with his cousins, which he had made in his first sorrow, are cancelled, and he sells the business in the Place Vendome, and retires with Clara to Clairvaux, in Normandy. Here again religion asserts its influence over his weak mind. And the father of the Mission and mother of the Convent seem to have shut their eyes to the illicit love while they opened palms to receive the gold he sought to palliate God's wrath withal. Léonce Miranda's object seems to have been the weak and feeble one of compromise. He gave to God, and to God's poor, in order that he might stay in sin, and yet avoid a punishment which, he thought, must needs follow; so that in three years the expenditure amounted to £40,000, a portion of which sum went to procure a jewel for the Virgin's crown at Ravissante. This, of itself, is not to be regarded as insane, but, when taken in connection with the other facts of his history, indicates a continued weakness of intellect. Wise men do not, as a rule, do such things, but many foolish men, who are yet very far from being mad, think in this way to "transact with God." Still taken, as we have said, with what went before and what follows, it indicates the continuance of mental feebleness.

It was at the end of those two lavish years that on a splendid spring day Léonce Miranda climbs the tower or Belvidere which crowns his house of Clairvaux, and thinks. What he thought the poet has put into a soliloquy beginning—

"This spring morn I am forty-three years old;
In prime of life, perfection of estate—
Bodily, mental, nay material too."

Continuing, he addresses the Lady called "The Ravissante;" speaks of his dedication to her, of his having given her his

hands, boasts of his generosity, expresses to her some sceptical doubts as to the miracles of La Salette and Lourdes, and after a good deal more very clever but rambling and inconsistent soliloquy, with the view of convincing all men he summons those angels that acknowledge her (this Ravissante) their queen to bear him through the air from Clairvaux to Ravissante; and bestriding balustrade, and—

“ A flash in middle air, and stone dead lay
Monsieur Léonce Miranda on the turf.”

We have nothing to do with what the Cousinry thought, or what Clara said, but we have to do with the judgment of the Court as to the validity of the will in which M. Léonce had left all his estates to Clara for life, and after her death to the church. The Court found that as the Cousinry had during his lifetime regarded M. Miranda as sane enough to transact business, and to convey to them the business in the Place Vendôme (we may remark that that seems to have been done two years before his suicide), it must hold that he was competent to make a will. This seems to us bad law. What the Cousinry did may have been evidence of his condition, but is certainly not a reason for a judicial decision. Thus the judgment proceeds that as the dispositions are natural and right—

“ Nor jar with any reasonable claim
Of kindred friendship or acquaintance here”—

the will must be upheld. This is something to the point. It used to be held in this country that if a testator made a natural and consistent distribution of his property, a lucid interval at the time of making the will might be inferred. But this was albeit only a presumption which was liable to be rebutted by evidence; and in the case which was before the tribunal at Vire there seems to have been ample evidence at hand of the insanity of the testator, and of his want of that disposing capacity. The very nature of the will in that case, the leaving of all his money ultimately to the church in connection with which all his delusion had existed, would bring the case within the limits of the decision in “*Banks v. Goodfellow*,” and the judgment ends thus:—

“ Which disposition, being consonant,
With a long series of such acts and deeds,
Notorious in his life time, needs must stand
Unprejudiced by eccentricity,

Nowise amounting to distemper; since
 In every instance signalised as such,
 We recognise no over-leaping bounds,
 No straying out of the permissible:
 Duty to the Religion of the Land,
 Neither excessive nor inordinate.

The minor accusations are dismissed;
 They prove more freak and fancy, boyish mood,
 In age mature of simple kindly man.
 Exuberant in generosities
 To all the world: no fact confirms the fear
 He meditated mischief to himself
 That morning when he met the accident
 Which ended fatally. The case is closed."

We must say we differ from this decision. We think that the whole life of Léonce Miranda indicated the existence of mental disease; that there was a fact which confirmed the belief that he wilfully committed suicide, viz., the burning of his hands; and from all the facts before us we cannot but differ from Mr. Browning, and must regard Léonce Miranda as a madman,—the judgment of the first Chamber of the Civil Court at Vire notwithstanding. But we question whether we have all the facts before us, and we will say why. The whole of the life of Léonce is not accounted for. In the first place we have it upon Mr. Browning's authority that when he saw Clare de Millefleurs first—at that time about twenty-two years of age—he flung himself at her feet—

"And never left them after, so to speak,
 For twenty years—till his last hour of life."

(p. 98.) And at the beginning of the soliloquy to which we have referred he says that he was forty-three years of age (p. 219). So that there are twenty years to account for. Yet Mr. Browning only gives us the history of seven, or at most eight of these years; and from his statement of the events it would appear that only seven years elapsed between his first meeting Clara and his leap off the tower. For we find that the quarrel with his mother occurred five years after the first of these events (p. 144). After quarrelling with his mother, as the reader may remember, he threw himself into the Seine, and is ill for a month (p. 151), at the end of which he returns to Clairvaux. The new year comes after another month (p. 154), and three days after that he is sent for, to find his mother dead (p. 157). Then came his raving, and the three long months he lay "in bliss or bale" (p. 178);

and "after some weeks more were gone to waste" (p. 180) he goes to Clara, and soon they return to Clairvaux, where he devotes himself to the practical casuistry of sinning, and yet praying to be rid of the rewards of sin.

"Two years did this experiment engage Monsieur Léonce Miranda" (p. 207), and this brings us to the 20th day of April, 1870 (p. 214), and that is the day upon which Léonce Miranda threw himself from the Belvidere of Clairvaux. Much more might, doubtless, have been ascertained had not his only constant companion, Clara de Millefleurs, been interested in establishing the validity of the will, but still even without any history of these years which have slipped out of Mr. Browning's reckoning, there is, it seems to us, ample reason for regarding Léonce Miranda as a madman. Mr. Browning's study is as careful and able as his other works. Although desiring to prove his hero sane, he has been the means of laying before us a careful pathological examination which has enabled us to form an opinion other than that which he himself has expressed. Whether he is right or wrong, he has produced a most admirable work. But praise in such cases comes so short of merit that it sounds almost like censure. We will say no more. "The case is closed."

The Treatment of Insanity.

According to the promise made in our last number, we shall endeavour to give a brief abstract of the chapter on Treatment in the third edition of Drs. Bucknill and Tuke's "Psychological Medicine." The chapter in question, as our readers are aware, is by Dr. Bucknill, and contains not only his own views, but those of various other writers on many questions connected with the treatment of the insane.

After some preliminary remarks on the historical theories of treatment, he proceeds to the subject of *prophylaxis*, "how the physician may prevent the outbreak of insanity in a person who, not being yet insane, is in more or less obvious danger of becoming so. No medical forethought can prevent the occurrence of insanity from accidental causes, from fevers, sunstroke, or other physical injuries; but a vast proportion of the insane become so in consequence of physical

conditions of life and modes of living, which lead to the result as certainly and evidently as unsanitary conditions of physical life lead to typhoid fever or tuberculosis. In order to establish a prophylaxis, the first step is the recognition of the Insane Diathesis."

By the insane diathesis is meant the condition of a person who is really of sound mind, yet who from constitutional fault is more liable than others to mental disease. It is as real a diathesis as that of gout or tubercle, and as hereditary, not unfrequently generated *de novo* by unsanitary conditions in the parentage or in foetal or infantine life, but most frequently the outcome of hereditary predisposition. One form presents itself as constitutional timidity and self-depreciation; a more frequent form, at least in the male sex, is a reckless spirit of audacity and defiance of and resistance to all rule, often accompanied in children by lying and cruelty, and passing, with advancing years, into outrageous irregularities of life and debauchery. Another form is overweening self-conceit and preposterous vanity; or simply detestable temper, or moroseness varied with outrageous passion; and in all these forms the intelligence is intact and not unfrequently precocious.

Here moral treatment is the true prophylaxis. If brought under the influence of strong and wholesome minds, the more favourable instances of these hereditary weak people may avoid the fearful heritage. The choice between home treatment and school treatment will be most important. And the growth of a sound body will also have a powerful influence on the soundness of the mind. Study must not be too severe, and should be wholesome in degree and kind. When a lad becomes his own master he is specially exposed to trial and temptation, and many a youth who passes through school without disaster, breaks down at college, when greater temptations have to be met with less guidance. If a man is threatened with insanity, various questions will arise—shall he give up his work, or business, or studies? Shall he travel? An infinite variety of circumstances will here demand consideration. To foreign travel Dr. Bucknill is decidedly opposed. He has known most disastrous results arise from patients being sent to travel without efficient watch and ward, and, as he says, to allow sensitive relatives to seclude from the public eye a man on or over the threshold of insanity, is to invalidate the whole spirit of the lunacy laws which are framed to protect Englishmen. Travel within the four seas,

however, is a fair and proper thing to try, with due provision for care and protection.

Concerning *marriage*, he says that the celibacy of the insane is the prophylaxis of insanity in the race, and although a well-chosen mate and happy marriage may sometimes postpone, or even prevent, the development of insanity in the individual, still no medical man, having regard to the health of the community, or even that of the family, will possibly feel himself justified in recommending the marriage of any person of either sex in whom the insane diathesis is well marked. The marriage of threatened lunatics is a veritable Pandora's box of physical and moral evil.

Dr. Bucknill then proceeds to consider the treatment to be adopted at the outbreak of an attack, and here he especially speaks of patients of the upper classes usually treated in private homes or private asylums. In former editions he spoke chiefly of the pauper class, for whose treatment our county asylums are provided. The only danger for the pauper is that of being shunted into the dismal solitary neglect of the union-house, where the guardians of the poor-rates will regard him with an eye of calculating parsimony. That this danger is a great one, so great as seriously to diminish the recoveries of the pauper insane, no one is more aware than Dr. Bucknill.

But how, on the outbreak of insanity, is a patient to be treated, who is not a pauper either actually or constructively? Really efficient and satisfactory treatment in a private house is costly; removal from home is necessary in almost all cases, and therefore removal to a private asylum is the wisest and most prudent step to be taken at once. Dr. Bucknill disagrees with the proposition enunciated by Dr. Maudsley, that not many persons recover in asylums who might not recover equally well out of them, and he would send all patients to an asylum in the first instance. We think that he speaks here too much from the point of view of the asylum physician who sees few cases save those which are confirmed in character, and more or less lengthy in duration. Many cases, however, are brief and transitory, yielding quickly to appropriate treatment, but likely to be converted into prolonged and severe maladies by the removal to an asylum. These passing attacks are, we are convinced, far more frequent than is suspected by asylum physicians, and we should have been glad of some hints to guide the practitioner in forming his diagnosis as to whether the insanity was likely to prove temporary or not. To a private asylum, then, Dr. Bucknill

recommends that private patients should be sent, and proceeds to give advice as to the choice of an asylum, "for these institutions differ from each other more than we shall venture to describe or depict." The asylum should contain a considerable number of inmates, at least thirty or forty, a careful classification being a main element of treatment. And the house must be spacious, airy, well furnished, and not overcrowded. "We have too often seen the inmates of private asylums for the wealthy classes so crowded together in sitting-rooms, that there was not a chair, or seat, or a sofa available for any new comer. Many of the private asylums, and especially the metropolitan ones, appear to us to be licensed for the reception of a far greater number of inmates than they are capable of containing under conditions of comfort and well-being, the defect being most apparent in the sitting-rooms, which are often quite inadequate to the bedroom accommodation, which is generally taken as the standard of the house capacity. And this defect is thus rendered more grave by the absence of the wide corridors in private asylums which afford so much foot-space in almost all public institutions, and which admit the possibility of walking about with some freedom within doors. It is a defect which might be remedied to some extent by the provision of spacious recreation rooms, or even of covered spaces, in which patients might freely walk about during inclement weather. As a rule, not half enough is done in our private asylums to provide the mere bodily exercise for their inmates which is needful for their health and comfort."

Dr. Bucknill complains that private asylum proprietors provide too few occupations and amusements for the inmates; that there are no saddle horses, boats, or games; no cricket, fishing, or hunting; and of such things he says—"We will not say that accidents never happen in these pursuits, which we recommend, though we have never known one. A constant benefit may well be purchased cheaply by a rare accident; but, in fact, accidents to the insane do not come by the way or in the manner by which most people would expect them, and well watched liberty with enjoyment is certainly far less perilous than the weariness, though apparent safety, of restriction and monotony. A lunatic is far more liable to commit some violent act on himself or others on account of the misery of a wearisome existence, than in breach of the confidence which is imposed in him for the purpose, well known to himself, of increasing his limited enjoyment of life."

The observations on the duties and qualifications of asylum physicians and attendants are most valuable, but they cannot be abridged, and we commend them to the reader's notice. With regard to mechanical restraint and seclusion, our author reprints some of the opinions expressed by him to the Commissioners in Lunacy and printed in their report for the year 1854. "It is not denied," he says, "that cases have occasionally arisen in which it was difficult in the extreme to avoid the imposition of restraint, for instance those of suicidal patients. The occurrence of such cases, however infrequent they may be, renders it impossible to deny that the imposition of mechanical restraint may, in rare instances, be rendered necessary for the safety of the patient." He further states (p. 754) that "restraint is avowedly admissible and necessary for medical as for surgical purposes. We tie a patient into a chair before we use the stomach pump, and ought to record the fact, or we break the law; and the Commissioners do not prejudice the inadmissibility of restraint, even for moral purposes, in all cases."

Dr. Bucknill comments on the various kinds of violence displayed by the insane, and classifies them under five heads, with their appropriate treatment. His remarks are very valuable, for it is too much the fashion among those unacquainted with insanity to suppose that all violence proceeds from the same cause, and is to be met with the same remedy. In speaking of the treatment and classification in asylums he discusses the methods to be observed in public rather than in private asylums, and although what he says of refractory wards, refractory airing courts, sick wards, and so on, is of great value, it chiefly concerns those who have the charge of public asylums.

With regard to the removal from an asylum, Dr. Bucknill fully agrees with Dr. Maudsley that such removal sometimes directly conduces to the recovery of an insane patient. In the irritable state of nervous weakness which so often succeeds an acute attack of insanity, the moral influence of one sound wholesome mind brought into constant relation with the recovering intelligence and subsiding storm of emotion is invaluable, and this influence can certainly be brought into play more advantageously in a private residence than in an asylum. And many chronic lunatics can reside with advantage in their own homes or in the private residences of others, and can be placed in all the freedom and enjoyment of life which their malady and means will permit. "But there is

another side to the question. If some insane persons are kept in asylums who ought not to be there, certainly many others, perhaps as many others, are kept out of asylums who ought to be placed therein." And so great is this evil that Dr. Bucknill is of opinion that it demands the interference of the legislature, for, as he says, the relatives of lunatics have, as a class, peculiarities which often render it a most difficult and sometimes an impossible task to persuade and influence them to a right and rational discharge of their duties.

The use of food and work is strongly insisted on in this chapter, and these elements of treatment are conjoined, because they are twin influences in the supply of good blood to the brain. With too much food and too little work, or too little food and too much work, the vivifying stream from which healthy mind is eliminated in the convolutions of the brain, will either be impure or impoverished. If patients were well fed in foreign asylums, the proportion of those who would be excited and turbulent would be so much lessened that the question of mechanical restraint would be greatly diminished in its dimensions. The work most essential for the treatment of the insane, whether it be labour in the case of the poor or recreation in that of the rich, is bodily exercise in the open air. This is far more easily applied to the former class, and we are cautioned that lunatics should not be permitted to engage in the out-door work of the public asylums except under medical sanction. Gentlemen, though they cannot be expected to dig and delve, yet walk, ride, shoot, row, and play cricket when sane, and so may be encouraged, when insane, to have recourse to the same exercises to promote their recovery or add to their amusement. The remarks on this question are worthy of attentive consideration.

Dr. Bucknill then passes to the *medicinal treatment*, which must, he says, be founded on the ultimate diagnosis which, as nearly as possible, refers the symptoms of each individual case to the exact pathological condition from which they arise. This treatment may be classified into that of the acute and chronic forms of the disease—into that which is curative and that which is only palliative, into that which is directed to the urgent symptoms of the outbreak and that of the more tranquil period which often succeeds between the outbreak and the convalescence, and the following objects are to be kept in view:—1st, to obviate any general derangement or diseased condition of the system. 2nd, to remove

the pathological condition of the brain, whether consequent upon, or independent of, general physical disturbance. 3rd, to treat urgent and dangerous symptoms.

Of *Bleeding* we read that in the treatment of more than two thousand cases the author never used the lancet, yet he thinks that as our forefathers were undoubtedly wrong in their abuse of it, so we may be not altogether right in our total disuse. And local bleeding by leeches or cupping is to be justified when, in addition to symptoms of acute cerebral hyperæmia there are superadded those of inflammatory action within the cranium. *Tartrate of antimony*, so often misused, he has found useful, not in producing nausea and depression, but in cases where a tolerance for the drug was manifested and where there is a good appetite for food. In certain cases also where acute mania threatened to become chronic, *mercury* pushed to ptyalism was beneficial. This treatment ought, however, to be followed only in the most exceptional cases; as a rule this medicine is to be avoided on account of the irritability of the nervous system which it tends to produce.

"The right employment of opium in the treatment of insanity is a question whose importance is inferior to none in the whole range of psychological medicine." After some notes as to the history of the use of opium in insanity, he notices the value of this drug in an allied disorder, viz., *delirium tremens* and "the transition is easy from *delirium tremens* to an important class of *maniacal* cases—mania—mania with pale face and weak pulse, with restless activity and utter want of sleep—and in these the preparations of opium or morphia are most beneficial." Their operation, however, is aided by that of other remedies, as warm baths, aperients, stimulants, and nutritious food. As a rule, opiates are inadmissible in mania so long as cerebral hyperæmia exists. "There is great risk in laying down rules, but, as a general rule, if a patient has been without sleep for three nights a full dose of morphia ought not to be withheld, notwithstanding heat of head and other symptoms of central congestion."

Dr. Bucknill is fully aware that there is some danger in the administration of opium in such cases. "There is," he says, "in certain cases of mania, a tendency to death from asthenia. Opium is powerfully influential in lessening this danger if it takes good effect on the system and procures restorative sleep; but if the pathological condition is too profound for the remedy, and large doses of opium are

administered without procuring the desired effect, the depressing influence of the ineffectual drug, which in voiding its desired function becomes a powerful sedative, is added to that of the disease, and the tendency to death from exhaustion is greatly increased. The knowledge of such danger has often withheld the administration of heroic doses of these narcotics, when the urgent need of procuring sleep at almost any risk would otherwise have indicated their use." This danger cannot be too strongly impressed upon the practitioner. Dr. Bucknill's remarks on opium remain almost exactly as they were written in his first edition of 1858. Had he practised his profession up to the present time we have no doubt that what he has said on the subject would have undergone much modification; for now-a-days we have other weapons in our armoury in the shape of chloral, bromide of potassium, and their combinations, which enable us to procure sleep with tolerable certainty, even in very maniacal cases, to dispense with opium and its preparations, or to reserve them for those cases of melancholia in which they are so eminently useful.

Of hydrate of chloral Dr. Bucknill has a high opinion, though it necessarily happens that his own experience of it is small, inasmuch as it was not used in this country till 1869. He quotes in its favour the opinions of Dr. Saunders of the Devon Asylum, Dr. Andrews of the Utica Asylum, New York, and Dr. Clouston, now of Morningside. The latter physician recommends that chloral should always be given combined with a stimulant, and given not in small and repeated doses, but in one hypnotic dose. By combination with spirits, wine, or porter, it is supposed that its depressing effect is counteracted, and that the wretchedness attending the awakening from sleep will be prevented. The cases, we read, to which chloral seems to be best suited, are those in which sleeplessness appears to arise from exhaustion of the brain, cases of dementia with intercurrent maniacal excitement, cases of mania in old age, of insanity following prolonged lactation, and many others in which a similar pathological condition may be diagnosed; and it is exactly in these cases that its combination with a stimulant is indicated. Cases of restless sleepless mania and melancholia, in which opium and all its preparations absolutely fail to procure sleep, are often found to be amenable to chloral. The most important combination of chloral mentioned is that of its use with morphia. From this combina-

tion the best effects have been observed. Fifteen grains of chloral, with a quarter of a grain of muriate of morphia, will often produce sleep which morphia alone would not effect, and after sleep leave a far greater amount of nervous tranquillity and a tendency towards recovery which chloral alone would not induce. Dr. Bucknill does not mention the combination of chloral with an alkali, which, in our opinion, tends frequently to enhance the hypnotic power of the former, and enables us to produce the desired effect by a greatly reduced quantity. Certain opinions adverse to chloral are quoted, as that of Schüle, who accuses it of producing flushing and congestion of the head, and a rash on the forehead. Dr. Hammond has observed congestion of the retina, and Dr. Wickham temporary blindness. We also are told that in a certain number of cases the drug produces nausea and vomiting, and here its use must be interrupted. It is not to be expected that the effect of a powerful drug, like chloral, will be the same in every case; but, though Dr. Bucknill does not say so, we suspect that anomalous symptoms are not unfrequently due to the use of a bad specimen of the medicine.

The author's experience of *bromide of potassium* has been to a great extent restricted to its efficacy in the cure or amelioration of epilepsy. Its value as a narcotic and calmative has been established by the well-known experiments and observations of Dr. Clouston, and this gentleman's latest conclusions are given at length in this work, and should be carefully considered by those who have to treat the insane. They relate not merely to bromide of potassium, but to bromide in combination with other neurotics, as Indian hemp, hyoscyamus, and opium. As to the usefulness of *digitalis* in reducing cerebral excitement, Dr. Bucknill refers us to the papers of Drs. Lockhart Robinson and Duckworth Williams, and he quotes Dr. Crichton Browne's writings concerning *ergot of rye* and *Calabar bean*. He repeats his former observations on stimulants, purgatives, and counter-irritation, with some slight additions, and quotes Dr. Clifford Allbutt's experiments with *electricity* as performed at the West Riding Asylum, and those of Dr. Newth at the Sussex. To his former section on baths, he adds a word upon the Turkish bath, which he thinks more calculated to improve the health of chronic and incurable patients than to act remedially on those whose malady is recent and curable. The *wet sheet* or *wet pack* was, we read, first used with much

benefit by Dr. L. Robertson, in cases of sthenic mania. Dr. Bucknill has not, however, used it himself. In forced alimentation he prefers a tube passed through the mouth to one passed through the nose. "But after all, either the regular stomach pump, or the nasal tube, or any modifications of these injecting instruments, are only of very rare and occasional value in the treatment of the insane. In the Devon Asylum for every patient fed through a tube, there were at least twenty fed without or against their will by spoons, pap-boats, and various devices for introducing food into the mouth, from whence it was swallowed. Our strongest advice is, however you decide to feed, feed early, and feed abundantly."

Owing to the division of labour adopted by the authors of this work, it happens, we think unfortunately, that the treatment of insanity is considered apart from the description of the various forms of the disease. On several of these, however, Dr. Bucknill makes some observations—on *Epileptic* and *Hysterical* Insanity, *Syphilitic*, and *Puerperal*. With regard to syphilis, he says, "That in the present state of our knowledge no physician would be justified in treating any insane patient for syphilitic insanity, unless the symptoms of syphilitic cachexia were actually present; without these syphilitic insanity is a doubtful type."

In noticing the treatment of puerperal insanity, Dr. Bucknill states that the most common condition of this variety is blood poisoning, septicæmia, of which there are various sources, the effete elements of the disintegrating uterus, retained alvine evacuations, the elements of the new milk secretion, and, according to Sir J. Simpson, the urinary excrements. Of these the reabsorbed uterine materials are by far the most important, and the treatment in such cases is to be antiseptic, eliminative, and anodyne. We do not agree with this septic theory, which is, we believe, propounded by obstetric rather than by alienist physicians. If puerperal insanity thus arose, we believe that it would be encountered among parturient women far more frequently than it is. When we turn to the descriptive notice of puerperal insanity at p. 350, we find no mention of this blood-poisoning. Under the head *ætiology*, we read that "hereditary predisposition is a striking feature of cases of puerperal insanity. Among exciting causes are mental shocks of any kind, distress of mind, especially in unmarried women, a tedious, exhausting labour, flooding, and the use of the lancet for puerperal convulsions." In our own experience we have found hereditary predisposi-

tion in a large majority of such cases, and that septicæmia should so frequently occur together with this predisposition, is difficult to believe.

The therapeutic treatment of general paralysis, we are told, may hitherto be said to be *nil*, for it is invariably fatal. "There is no reason, we are aware of, why this should be so, nor why some remedy, or combination of remedies, may not yet be discovered, with power to arrest and counteract the organic changes which slowly take place in the cord and brain, and such well-intentioned experiments as Dr. Crichton Browne has made with Calabar bean, and other drugs, may not always be unsuccessful." The medical management, however, is highly important, and we are especially cautioned not to allow paralytic patients, in the later stages, to lie in bed, and so contract bed sores, and Dr. Bucknill reminds us of the reclining chair invented by him, and depicted in the first volume of the "*Asylum Journal*."

We shall conclude this notice of the chapter on treatment with some valuable remarks on the combination of remedies. "The method of employing single remedies only with the purpose of observing more accurately their effect is, without doubt, scientific, and of great value, but as a matter of treatment it is open to objection. Before we can properly combine and use medicines therapeutically, we must know what they are worth by themselves, and the investigations of Dr. Crichton Browne on ergot, Calabar bean, and nitrite of amyl; of Dr. Clouston on bromide of potassium; and Dr. Robertson on digitalis, are worthy of all honour. But that single medicines do not possess the power of curing disease like skilfully combined ones is a fact which none of the great physicians, even of our own time, can be cited to contradict, and among the older physicians the skill of combination was carried to a high art. The one-drug investigations of the present day have no relation, except that of contrast, with such teaching as that which is contained in Paris's '*Pharmacologia*,' and then it is well to remember that in dealing with complicated states, like that of many concrete cases of insanity in which sometimes several diseases are co-existent, the pharmaceutical skill of the prescribing physician is often far more successful than the stricter method of the investigator. The question, What is this drug worth? is different from that other question, How shall I cure this patient? and both are right in the right place. The patients in our institutions, supported by public funds, may fairly be required to

forego some margin of their advantages for the sake of a great public benefit which the precise determination of a drug's value undoubtedly is. But the physician, in the usual practise of his art, must, like St. Paul, be all things to all men, that by any means he may save some; he must vary and change and combine the powers he employs, so that when the patient is cured he may often be unable to say which drug, or part of his treatment, has had the most curative effect."

We have thus set before our readers some of Dr. Bucknill's views as to the treatment of insanity, especially the additions made in the present edition. The whole chapter, however, should be read. His experience of private, public, and official lunacy is so extended that his opinions on this subject are necessarily of the greatest weight and value.

CLINICAL NOTES AND CASES.

Two Cases of Intra-cranial Syphilis. By J. HUGHLINGS JACKSON, M.D., F.R.C.P., Physician to the London Hospital, and to the Hospital for the Epileptic and Paralysed.

CASE 1.—There was, in the following case, no history of syphilis, but the appearances *post mortem* seem to me to warrant the diagnosis. It may be asserted that the severe blow on the man's head was not merely, as I suppose, the determining cause of intra-cranial syphilis, but that it alone, without the predisposing help of syphilitic taint, led to the changes discovered *post mortem*. The nodules in the testis, however, were, I think, pretty conclusive evidence that all the blow did was to determine syphilis locally. The cicatrices in the liver were more than merely suggestive. Further, the disease of the cerebral arteries was quite like that seen in cases in which there is such evidence as nodes to demonstrate the existence of syphilis. The first attack of hemiplegia, if not the second, was due doubtless to local softening consequent on thrombosis of a syphilitic artery. Such an indirect mode of production of paralysis in syphilitic cases must always be carefully considered. It has been described in this country by Bristowe, Wilks, Moxon, Broadbent, Buzzard, and myself. I have recorded several cases.—"Lond. Hosp. Rep.," Vol. 4, 1868.

Valuable evidence of syphilis is in the clinical course of the case. *A random Association, or a random Succession of*

nervous symptoms, is very strong warrant for the diagnosis of syphilitic disease of the Nervous System. The case illustrates this well, as does also the second case.

A soldier, 30 years of age, was sent to the Hospital for the Epileptic and Paralysed by Dr. Jeffrey Marston, October, 1867. There was *complete* paralysis of both third nerves of five months' duration. According to the patient, these palsies came on *suddenly* one morning when he was out walking. When admitted there was nothing more than palsies of these nerves. His optic discs were normal; he was healthy-looking; took his food well, and went out daily. In any case of palsy of any cranial nerve the important matter is to search for syphilis. The patient denied having ever had syphilis, and no signs of its past ravages were discovered. But the testes were not examined. This should be done in doubtful cases; in this case, *post mortem*, two nodules of "deposit" were found in one of the testes. There was a history of a severe blow on the head *two years before* admission. He was one day unmanageable from drink, and, therefore, to use his own words, "they were obliged to stun him." He suffered very little afterwards from the blow, so far as he knew, and kept well until four months before the palsies came on—nine months before admission. During this four months he had much pain in the head from temple to temple.

Plainly there could be no certainty in the diagnosis of the case in this stage. There could be only the suspicion of syphilis. The fact that the palsies were very symmetrical is not, as would seem at first glance, in favour of syphilis, but is rather against it. Palsies of cranial nerves from syphilis are *not* usually symmetrical (Optic neuritis or atrophy following it, is not included in the expression "paralysis of a cranial nerve"). Mr. Hutchinson believes that tertiary syphilitic symptoms are mostly unsymmetrical. The history of a severe blow was not evidence against syphilitic disease, for syphilitic disease of the brain frequently follows blows on the head—is, so to speak, lighted up by injury.

On the mere suspicion of syphilis large doses of the iodide of potassium were given. The continuous current was used by Mr. Netten Radcliffe. Under this double treatment the paralysis of the left third nerve diminished slowly to a slight extent; the pupil on that side became smaller. But the improvement was of no practical value. The patient was as much incapacitated as before; in order to see he had to use his frontal muscles and throw his head back.

The ill success of anti-syphilitic treatment did not negative the suspicion of syphilis. After five months' paralysis benefit could scarcely be expected from drugs. No one would expect iodide of potassium to remove old syphilitic "lymph" blocking up a pupil. Indeed, during the treatment the patient had a new style of symptoms; he had, on Sept. 23, two convulsive seizures, in which he was insen-

sible. He quickly recovered from each of these, seeming just as before. As nothing was heard of the *kind* of convulsion we learned nothing of much value to further the diagnosis. A general convulsion—or what is practically the same to us, a convulsion about which we get no details—is of no great value in diagnosis. A general convulsion from tumour or from uræmia may be quite indistinguishable from the convulsion of so-called idiopathic epilepsy. The occurrence of convulsions was in this case of some value, however, for it was *another* nervous symptom very different from the former. A paralysis of the third nerve of necessity points to disease affecting the nerve *trunk*, or the crus close to the implantation of the nerve; a convulsion is due to discharge of some nerve *centre*.

On the morning of January 5 the patient was found paralysed on the right side, face, arm, and leg; there was the “common form” of hemiplegia. Sensation was slightly diminished. His speech was unaffected. There had been no convulsion in the night so far as was known, and it probably would have been noticed, at all events had it been severe. The hemiplegia was too persistent to be the result of a convulsion; it was not the epileptic hemiplegia of Dr. Todd. It was, no doubt, owing to local softening from thrombosis of a syphilitic artery. Although the patient could speak, and was quite conscious, he was obtuse or apathetic. I now felt more confident as to the nature of the case. For now we had had three *different* symptoms—palsies of cranial nerves, convulsive seizure, and hemiplegia, which last was almost certainly an independent symptom, that is, not the result of a convulsion.*

He afterwards left his bed, and used to sit by the fire, but the hemiplegia remained. His appetite kept good until about a fortnight before his death. But after the attack his mental condition deteriorated. He became more and more listless. He occasionally wandered in his talk (his speech, in the strict sense of the word speech, being unaffected), but could always pull himself together to reply to simple questions about his case. On March 21 he had permanently settled in his bed, and on that day he did not know his wife. The optic discs were still normal.

On the morning of April 7th he was found to be paralysed on the left side. His mouth was a little turned to the right side, and from this time he never moved his left arm and leg. He had had some

* It is not uncommon for paralysis to follow convulsions; as I believe the paralysis is *produced by the discharge* in the convulsion. I use the expression “result of a convulsion” in the text. The after effects of strong epileptic discharges deserve careful consideration. I believe that in epileptic mania, and in so-called “masked” epilepsy, the highest nervous processes are put *hors de combat* by a strong nervous discharge, just as the corpus striatum is in epileptic hemiplegia. On this view the raving in epileptic mania is not owing to the epileptic discharge; it begins when that discharge is over, and results from uncontrolled action of processes more automatic than those temporarily paralysed by the discharge.

kind of fit, no doubt a convulsion, as his mouth, lips, and gums were bloody. I could not get a look at his tongue, although he seemed to make efforts to put it out when I asked him; although he seemed conscious, he never spoke afterwards; he lay like an inert mass, and gradually became comatose. It is to be observed that both pupils became small and equal before he died. He died April 11.

Autopsy.—There were two yellowish-white—wash-leather like—nodules in one testis. In the liver were several puckered cicatrices, which I suppose to have been the result of past syphilitic disease, but there were no nodules like those in the testes—no decisive evidence in the liver of syphilitic disease.

Examination of the Brain—*The Arteries from back to front.*—The right vertebral artery seemed to be healthy until about a quarter of an inch before it joined its fellow to make the basilar, where it began to swell—so to speak—to three times its diameter, and this condition was carried on so as to involve the basilar itself for about one-fifth of an inch. The swelling was of the usual gummatous stuff, but more friable than is common. The left vertebral was similarly thickened, and to it were firmly welded, by yellowish gummatous matter, the rootlets of the ninth nerve. The trunk of the left anterior cerebellar artery ran back parallel to the left vertebral, and was glued to it, and also to the sixth nerve. The anterior fifth of the basilar was here and there lumpy, and at its division it was much thickened, flattened, and whitish. Both posterior cerebral arteries, and both superior cerebellar and the two third nerves were all fixed to one another by material similar to that thickening the arteries. The left posterior communicating artery had three nodules on it. Through the arachnoid over the inner end of the right fissure of Sylvius was seen a yellowish mass the size of a horse-bean. The right middle cerebral artery was enlarged and nodose, and it and all its principal branches were firmly welded together. But on cutting up these vessels I found no plugs in their channels. The left middle cerebral artery was much thickened, but was quite pervious; its branches were a little nodose here and there. The anterior cerebral arteries soon after entering their fissures were thickened and glued together. They were both blocked up.

The Brain Substance.—The convolutions of the frontal lobes were healthy. The floor of the fissure of Sylvius was imperfectly softened for about an inch from its commencement. The *right* corpus striatum was slightly depressed on its inner and anterior part, and below this part there was softening of the size of a hazel nut. The *left* corpus striatum was softened in the lower and external part, about midway from front to back (the frontal convolutions were not affected), and the lower part of the thalamus was slightly softened. There was no disease in the other parts of the encephalon.

In the following case, also, there was no direct evidence of syphilis; there was indirect evidence in the state of the

patient's daughter ; she presented signs pointed out by Mr. Hutchinson as indicative of inherited syphilis. The post-mortem examination, to say nothing of the "Random Succession of Symptoms," is decisive.

I would here remark that, as this case illustrates, double optic neuritis frequently exists when there is no evidence to show that sight is affected, and indeed when there is clear evidence that it is good.

I have asserted this over and over again, but it is a thing hard to believe. Besides other reasons, the importance of recognising this is that we shall often discover optic neuritis too late for successful treatment—too late, I mean, for the *prevention* of amaurosis—unless we examine the eyes by routine. If a patient has any kind of nervous symptoms, especially pain in the head, we must not wait until his sight begins to fail ; we should use the ophthalmoscope by routine. If we do we shall discover optic neuritis in its pre-amaurotic stage. Another thing to be mentioned is that optic neuritis from syphilitic disease in the brain differs in no way from optic neuritis the result of a glioma or other "foreign body." Optic neuritis tells us nothing more than that there is coarse organic disease of some kind within the cranium. Its diagnostic value is the same whether sight be affected or not. There is no difference in the optic neuritis, whether the tumour or other foreign body causing it be in the cerebrum or cerebellum. It is of no value whatever in Localising beyond that it points to disease within the cranium.

Joseph Mx., aged 45, was first seen by me in the London Hospital, October 15, 1866. He was then lying in bed, as if half stupefied ; probably, in part, from pain in the head, which seemed to be intense. He kept crying out, "Oh ! my head !" and paid little attention to any questions. His speech, however, when he did talk, was quite good ; there was no paralysis anywhere. There were no obvious symptoms, except the pain in the head and the great apathy. However, I examined his eyes by routine, and found that he had double optic neuritis. There was no evidence that his sight was affected, but it was only possible to test it in the very roughest manner.

From the intense pain, and from the double optic neuritis, I could only infer that there was *some* kind of adventitious product in some part of the encephalon. As there was no paralysis, no localising symptom, it was impossible to fix the seat of this adventitious product, except, perhaps, negatively ; that as there was no paralysis, it was very unlikely to be of the motor tract. Nor was there evidence as to its particular nature ; for any kind of "foreign body" (glioma, syphiloma, abscess, hydatid cyst, &c.), would produce severe headache and double

optic neuritis. To anticipate, when recovered from his acute illness he denied having ever had syphilis. Nor did the history which his friends gave help us. Three weeks before, when selling fruit in the streets, he fell, and cut his head; he was brought home, managing to walk. He had "no senses" until next morning; until that time his wife could not tell what he said. He then told her that he had had a bad fit, but that it occurred after the injury to his head in the fall. He continued, however, to be in a "stupefied state," and at one part of the first week passed his motions under him. As such was his mental condition, it would not do to trust his account of the onset of his symptoms. He had during this week severe pains in the head, and—but only on one day—a few minutes' vomiting of "slimy" stuff. His only previous ailment had been "rheumatics"—possibly pains from syphilis.

Supposing the patient had had a convulsion, either before or after the fall mentioned, it would have furnished no evidence whatever as to either the seat or as to the nature of the lesion. If I had heard that the fit affected solely or almost solely one side of the body, I could have inferred that the adventitious product—which, be it observed, the severe pains in the head and the double optic neuritis declared to exist—was of the cerebral hemisphere on the side opposite the side of the body convulsed or most convulsed. Moreover, this would have been *empirical* evidence as to the nature of the disease, because convulsions of this kind in association with double optic neuritis do point, in *most cases*, to *syphilitic** disease of convolutions—to coarse gummatous "deposits." The convulsion alone, or the optic neuritis alone, has not that value.

However, the only evidence I could obtain bearing clearly on the particular *nature* of the disease was that the patient's wife had had three children, of whom one was born dead, another lived half an hour, and the other was still living. But neglecting this, and it was, of course, only suggestive, there was nothing to show that the patient's illness was not owing to glioma, which might be in either the cerebrum or cerebellum. There was only evidence of "coarse" intracranial disease of some kind.

Nevertheless, I decided to give large doses of iodide of potassium; not because I knew the man was suffering from syphilis, but because there was a chance that his symptoms might be owing to syphilis. I have not only acknowledged that I did not know, but I have tried to shew that I *could* not know that the adventitious product was syphilitic. I repeat, the acute illness the man had was just like that which glioma or any other growth or mass might have produced.

I gave him large doses of iodide of potassium three times a day. He improved with marvellous rapidity, and in about a week was apparently well. The edges of the disc were ill defined, the discs were reddened,

* I am glad to find that Dr. Buzzard agrees with me in thinking that this association (of optic neuritis with one-sided convulsion) is "an important diagnostic feature." See his lately published work on "Syphilitic Affections of the Nervous System."

and the veins were tortuous. His sight was good. His sense of smell was unaffected. He went out apparently in good health.

It may be said that now, at least, I should be convinced that the patient's intra-cranial disease was syphilitic. That he recovered so rapidly after the use of syphilitic remedies was strong evidence, and the only evidence. The rapid recovery—not the recovery merely—would be, for instance, the only evidence rendering it worth while to publish the case as one of “recovery from syphilitic disease of the brain.” It is quite a theoretical conclusion to suppose that patients do not recover temporarily from such symptoms as this patient had, even when produced by cerebral tumour of a non-syphilitic kind—a remark only likely to appear strange to those who do not bear in mind that a large tumour may exist in the cerebrum when there are no obvious symptoms of any kind whatever.

Another matter is that had we been certain that his illness was owing to syphilis—had there been a node on the head, and a large gap in his palate to declare it—we could only say that the patient had got rid of his symptoms. We could not suppose that he was cured of syphilis, nor do I think we could conclude that the effused syphilitic material was absorbed. A patient who has recovered from a syphilitic affection of the nervous system is *very likely to suffer* again—not necessarily from the same kind of symptoms, but more likely from a new style of symptoms.

I have many times expressed the opinion that the therapeutics of syphilitic affections of the nervous system is not so triumphant as is often supposed. I do believe that symptoms pass off rapidly under the use of remedies, and have just given an example. But if we keep an eye on our patients we find them suffering again; we often “cure” them many times.*

In April, 1867, five months later, he came to the outpatient room, saying that he had had three fits during the month, and for one month pains in the head. But I learned nothing as to the *kind* of these seizures, and soon lost sight of the patient again.

But in July of that year I obtained indirect evidence bearing on his case. His only living child, a girl, 12 years of age, was brought to me for convulsive seizures, to which she had then been subject eight weeks. She had no warning, fell suddenly, was convulsed, did not bite her tongue. Now this girl had narrowed upper central incisors, and they were slightly notched. Mr. Hutchinson was kind enough to look at them,

* I have recorded a striking case of this kind “Med. Times and Gazette,” March 29, 1873. The patient was cured four or five times.

and declared them to be characteristic of congenital syphilis. She had nebulous corneæ, but this was doubtfully the result of past interstitial keratitis. The child's nose was sunken. She afterwards died of typhoid fever; no traces of visceral syphilis were discovered.

From this indirect evidence I conclude that the patient—the father I mean—had syphilitic disease of the brain.

On October 16, 1867, I found him in the hospital again. He was lying in bed, apathetic and miserable looking. There was palsy of the right side of the face and slight weakness of the *left* arm and leg. The facial palsy was not owing to affection of the trunk of the portio-dura nerve, nor of its nucleus. The paralysis was slight, but this would not shew it to be not due to affection of the trunk of the portio dura, for this nerve may be slightly affected. But the palsy was very unequally distributed. There was great palsy of the cheek, whilst the orbicularis palpebrarum was slightly affected. It was certain from this that there was a central lesion, but unfortunately no history was obtainable of the mode of onset of the hemiplegia. Had both the hemiplegia and the facial palsy occurred together we should have supposed there to be a lesion in the right side of the pons; if at different times, possibly two lesions—one of the left corpus striatum and one of the right corpus striatum or thalamus. Had the symptoms come on suddenly we should have inferred softening from thrombosis; if very slowly, a growth.

I gave him fifteen grains of iodide of potassium three times a day, but a week later he would leave the hospital. He was confused, scarcely knowing, except from minute to minute, what he did.

On Nov. 27th, he was brought back by his wife. He still had the paralysis mentioned, under date of Oct. 16, and now also palsy of the *left* third nerve; his general condition was about the same. Under iodide he again improved; the palsy of the levator palpebræ passed off, and the palsy of the recti diminished. The optic nerves—not examined by the direct method—looked normal.

He went out Feb. 11 (1868), but was brought back Feb. 18, for complete hemiplegia of the right side, and loss of speech. His wife said that at two o'clock that morning he asked for the chamber-pot, and seemed to have a "struggle" to get up to use it. He never spoke again, and at three o'clock he had some kind of seizure, possibly a convulsion, and was found to be paralysed and speechless. I saw him

February 22. The palsy of the left third nerve was as last noted. The hemiplegia was of the ordinary form, the face, arm, and leg being paralysed, as is usual, and *the head and eyes being turned to the left*. These two deviations point to a grave lesion. He was not insensible, but could not put out his tongue; yet as he could swallow well it was clear that his tongue was not paralysed—that is, not paralysed in the ordinary sense of the term. His appetite was fair; he could take meat. He passed his fæces and urine in bed. Gradually he became more and more apathetic, his appetite failed, he swallowed badly, and a bed sore formed. He died March 27, 1868.

Autopsy.—There were found two gummatous masses, each of about the size of a hazel nut, in the right posterior lobe; they affected the part lying on the tentorium, close to the petrous bone. There was much softening round about them. There was a small gumma, size of half a pea, on the surface of a convolution of the left parietal lobe. There was a focus of softening the size of a horse bean in the right (*sic.*) crus cerebri; there was a focus of softening, the size of a pea, in the right thalamus opticus. The corpora quadrigemina, pons Varolii, and medulla oblongata were healthy.

There were several small yellowish raised patches on the basilar artery, but the main arterial disease (gummatous, not atheromatous) was of the left middle cerebral artery. One of its main branches was nodose, running, as it were, through several lumps—gummatous thickenings of the outer coat. Its channel was not occluded. There was considerable softening, however, of the hinder part of the corpus striatum, and of the under and fore part of the thalamus. The frontal convolutions were not damaged.

Mania as a Symptom of Bright's Disease. By SAMUEL WILKS, M.D., F.R.S.

Having had under my care in Guy's Hospital several cases of Bright's disease in which maniacal symptoms have occurred, I wish to draw attention to the fact, in order to elicit information and opinions from others, as to the probability of this form of cerebral disturbance being a result of uræmia.

The most striking morbid phenomena referable to the nervous system in this disease are, as is well known, convulsions and coma. These brain symptoms were first accurately described by Addison in the Guy's Hospital Reports for 1839,

and are characterised by a dulness of intellect, sluggishness of manner and drowsiness, going on to a quiet stupor, ending in coma, with occasional convulsions; the case being distinguished from apoplexy by the pale face, quiet pulse, natural pupil, and the stupor of a kind from which the patient can be momentarily roused, to sink again into the same drowsy state. To designate this the term "quiet stupor" was the expression always used by Addison. These are the cerebral symptoms which, according to the experience of all, are very usual concomitants of degenerated kidneys, and with myself it was many years before I had a suspicion that anything like excitement might attend uræmic intoxication. It was long before this, however, that the question was suggested to me during the course of a trial in which I was engaged in association with another London physician. The case was one where a young man had on his death-bed made a will in favour of his wife, a person beneath him in station, and to whom it was not known at the time that he was married. In the attempt to set aside the will, a *post-mortem* was made, in the description of which a hesitating opinion was given as to the healthiness of the kidneys; whereat the solicitor in the action gathered information relative to the existence of cerebral disturbance in connection with disease of these organs, and on which he tried to found an argument as to the soundness of the testator's mind. My friend and myself assented to his general proposition, but maintained that the symptoms would not resemble those of ordinary mental derangement, being either those of stupor, unconsciousness, or coma; that there would be a deprivation of all mental power, but no aberration of intellect, as the lawyers would understand it. There was then thrust upon us the case of puerperal mania in connection with albuminuria, but this did not shake us in our opinion. Since this time, however, I have had reason to believe that in uræmia certain aberrations of mind are occasionally found; not, I think, of the kind suggested in the trial, leading to perversions of moral feeling and of intellectual operations such as are usually implied in the term insanity, but rather acute maniacal conditions. When I use the word "uræmia," I do so in its more general sense as implying the blood charged with urinary ingredients and not necessarily with urea alone.

During the last few months three patients suffering from Bright's disease have been under my care, in whom acute maniacal symptoms occurred. These patients had long been ill with the usual concomitants of Bright's disease, and in

two of them there were associated with the cerebral symptoms epileptic fits, so that I asked myself the question whether the mania was due not directly to the uræmia, but to the condition of brain usually associated with convulsive attacks.

The first case was that of a railway guard, who had been behaving in a strange manner all day, and at last had a fit, and was brought to the Hospital. He was then violently mad, and was put into the "strong room;" he was the subject of marked gout, and had highly albuminous urine. After two days he became quite rational, and was then treated for this disease, which was evidently chronic, and due, in all probability, to a gouty granular kidney.

A young woman, long the subject of Bright's disease, after having been in the hospital for some weeks, had several epileptiform fits, and at the same time was so greatly maniacal that she had to be removed to the "strong room." After a few days these symptoms passed into those of lethargy, when she gradually resumed her original state.

A woman, beyond middle age, in an extreme state of cachexia in connection with long-standing Morbus Brightii, suddenly lost her reason, became noisy, threw herself about, and was obliged to have side boards fixed to her bed. She remained in this wild, senseless condition for a week, when she again became quiet, subsequently dying from the effects of atrophied kidneys.

In these cases it might be suggested that the maniacal attacks were due to the epileptic condition of the brain, and not directly to uræmia, or even to some impoverished state of brain in connection with diseased blood-vessels. I might mention that in some other cases lesser conditions of mental aberrations have been noticed, as in a chronic and most typical case of Bright's disease long in the hospital, where the man's mind was always in a rambling state, and sometimes he was not coherent in his speech. In another case, where similar symptoms were present, the patient had gout, and was suffering from a not unfrequent attendant upon it, lead poisoning; so that a number of circumstances had to be considered which might favour the mental disturbance.

I speak, therefore, hesitatingly of maniacal symptoms being caused by uræmia, since a number of other causes in each case may be present on which they may depend, and also because good observers have not, as far as I am aware, described such symptoms as characterising the brain disturbance of Bright's disease.

*Some further Cases of General Paralytics committed to Prison for Larceny; with Remarks.** By J. WILKIE BURMAN, M.D., Edin., Resident Medical Officer and Superintendent of the Wilts County Lunatic Asylum, Devizes.

In the "Journal of Mental Science" for Jan., 1873, I ventured to lay before you, as members of the Medico-Psychological Association, notes of six cases in which undoubted general paralytics had committed theft after the onset of the disease, and had, consequently, suffered a greater or less term of imprisonment, the disease remaining unrecognised both before the trial and for some considerable time afterwards. In each of these cases, as I showed, from the previous good character and absence of reasonable motive for the crime, as well as from the general history and advanced condition of the disease on admission into the asylum, there was every reason to believe that the crime was merely an early mental symptom of the disease; and, in one case, a clear relation between the delusions of the patient and the objects stolen was ascertained to exist. Since then I have collected notes of a few further cases of a similar nature, which I am, on this occasion, induced to lay before you in the hope that those members of the Association present at this meeting may, perhaps, be led to state the results of *their* experience as to the occurrence of such cases, and give us the benefit of their opinion with regard to them. By such a collation of experiences we shall lay the foundation for a more comprehensive view of the facts of the subject, which appears to me to be one of very considerable medico-legal interest and importance.

CASE I. (Recorded by Dr. Joseph Rogers, Medical Officer to the Westminster Union Infirmary, in a letter to the "Times" of Oct. 29th, 1873.)—W. W., male, married, journeyman tailor, age not stated.

History (from patient's wife, a very respectable and intelligent person).—Up to Nov., 1872 (about three or four months previous to the commission of the first theft), patient was always a steady, industrious, and sober man; after that date, however, he changed much, becoming moody and melancholy, and neglecting his work. Towards the latter end of Feb., 1873, between five and six o'clock in the evening—it being yet light—he was in Little Pulteney Street,

* Read at a Quarterly Meeting of the Medico-Psychological Association, held in London on April 29th, 1874.

Soho, when, suddenly, he put his foot on the shop-board of a poulterer there, and, clambering up, took from the topmost hook (which was about 10ft. from the pavement) a hare. This he threw over his shoulder, and, jumping down, walked away a few yards, and then, stopping, entered into conversation with two men. The act was noticed, and he was followed and taken into custody where he was standing, the hare being still over his shoulder, and no attempt at concealment having been made. He was taken before Mr. Newton, at Great Marlborough Street, and sentenced to a month's imprisonment with hard labour. On his discharge from prison, his wife found his mental condition much worse, and, though work was obtained for him, he did it so badly, from sheer incapacity, that his employers declined to give him any more; but, as the man looked ill, advised that he should apply for medical assistance. The wife was about to make application, accordingly, for his admission into the Workhouse Infirmary, when she heard he was again in custody. This time under the following circumstances:—It would appear that he went to the house of a master tailor, in Maddox Street, to ask for employment. He had worked there before, and was well-known. He was engaged, and told to come next morning. As he was going out of the house he took down a pair of trousers, and, putting them under his arm, walked away. The act was witnessed; he was followed and given into custody, taken before Mr. Knox, and committed for trial. Subsequently he was tried, convicted, and sentenced to six months' imprisonment with hard labour, no medical or other official having recognised the poor man's mental condition save the gaoler at Great Marlborough Street, who told his wife that he was sure her husband was not right in his head. Shortly after his discharge from prison this time his wife noticed that patient's condition was so much more marked that she at once applied to the relieving officer to have him sent into the Workhouse Infirmary, being afraid, as she told Dr. Rogers, that he might again do something which would subject him to further punishment; and, accordingly, Dr. Rogers was sent for to visit his patient; but, being absent, his deputy went instead and reported the patient as being of unsound mind, and Dr. Rogers, on examining him next morning, found patient to be not only deranged, but to have special symptoms, such as partial paralysis of speech, &c., and came to the conclusion that he had been so affected for some considerable period. Patient was then removed to the Westminster Union Infirmary, where he remained for ten days prior to his being removed to the Middlesex County Lunatic Asylum, at Hanwell, during which time he "took everything he could lay his hands upon." Satisfied that a very great mistake had been made in treating this paralytic lunatic as an accountable being, Dr. Rogers called in Dr. Blandford, of Grosvenor-street, to see the patient, and he quite confirmed Dr. Rogers' view of the case, in every particular, as to its nature and its palpably chronic character. After this, and feeling

strongly that patient had been illused, Dr. Rogers wrote to the Visiting Justices and to the Commissioners in Lunacy, requesting them to make inquiry into the treatment he received while in prison, and in reply to his letter, the Commissioners forwarded Dr. Rogers a copy of the special report, made to them at their instance, as to the condition of the man when admitted into the Hanwell Asylum on the 24th October, 1873; it was to the effect that patient was found to be suffering from "imbecility with general paralysis." Such, then, is the history of this case, and such are the facts concerning it; and it appears to me that a great debt of gratitude is owing to Dr. Rogers for his prompt recognition of the real nature of the case, which was so amply verified at subsequent examinations by the highest authorities; and for his giving publicity in the "Times" to the sad facts of a case so well authenticated. Having already paid some little attention to the subject, and published several similar cases, I felt it my duty to write to the "Times" in support of Dr. Rogers, the letter appearing in the issue of that newspaper for Oct. 31st, 1873. This letter was the subject of comment in the "Pall Mall Gazette," of the same date, by a writer who, in an article headed "Larcenous Insanity," endeavoured to throw ridicule on my views and statements as founded on experience and put forward in the interests of humanity, and who referred to the letter as indicating "a further advance of the most highly speculative form of medical theory in relation to crime." To this criticism I shall refer later on, and in the meantime, in leaving this case I must apologise for the prolixity of detail with regard to it into which I have felt myself obliged to enter, in order properly to elucidate the nature of the case.

CASE II.—This case occurred during my later experience at the West Riding Asylum, Wakefield, and the following are some fuller notes than those taken for the case-book, which I recorded at the time in my own private note-book, for the special purpose of their being thus reported. J. T., male, of middle age.

History.—About two months previous to admission into the asylum (never before having been in gaol or committed any indictable offence, having always been an honest and steady man) patient was tried at the Wakefield Sessions for stealing seven pigs; but a medical man coming forward (according to the statement of the police-officer in charge of the patient on admission) and stating that, in his opinion, patient was insane, he was acquitted, and ordered to be detained during her Majesty's pleasure, having been already in prison for the ten days immediately preceding his trial. From that time up to admission into the asylum, patient remained in the Wakefield House of Correction, under special supervision in the hospital; and he was brought to the asylum under her Majesty's sign manual and Secretary of State's warrant, the medical officer of the prison certifying that, during his stay there, he had manifested no symptoms of insanity. On admission into the asylum, patient was

found to be somewhat demented, and presented the well-marked physical symptoms of general paralysis of the insane, which I need not here enlarge upon. He exhibited a considerable amount of self-satisfaction inconsistent with his paralysed condition, and said he was quite as well as ever, and able to do his work well; such not being really the fact. We gathered from him that about ten months previous to admission, being a mason and contractor, he was unfortunate in several contracts, and lost accordingly a lot of money; and that he had not done well since, having had to pay 10s. a week out of his wages to meet deficiencies, of which £10 or £12 still remained unpaid on admission; this preyed on his mind very much, and he became a changed man; he found increasing difficulties after this in performing his work as a mason, from the tremulousness of his hands, and he often, he said, fell off ladders and walls when at work, on account of the weakness and unsteadiness of the muscles of his legs. About four months before he committed the theft, he was discharged from his employment on account of sheer physical incapacity, and after that he had, for a considerable time, but little sleep at nights.

CASE III.—This, like Case II., occurred at the West Riding Asylum, and, as in the other case, I took private notes at the time of admission. G. T., male *ætat.* 40; married, iron-moulder. Admitted November 22nd, 1873.

History (from patient's wife).—In June last, or about five months before admission, patient fell and injured the back of his head, and, though always well before, has not been well since. He got gradually worse, complaining of pain in the head, and his memory becoming impaired; so that his wife, altogether, considered his mind to be affected from the change which had come over him. About the middle of August—three months before admission into the asylum, and over two months before his commission of the theft—he was discharged from his employment on account of inefficiency, and had done no work since; having for some time previous to his discharge made, when casting, a lot of what they technically term “wasters.” About three days before he committed the theft he went to bed at four o'clock in the afternoon, and got up afterwards at 12 p.m., and lit the fire, in spite of what his wife said and did to prevent him; and he acted from time to time after that in a similarly peculiar manner. The theft, according to the prison officer, was committed on the 1st of November—about three weeks before admission—and consisted of his stealing $\frac{1}{2}$ cwt. of coals. For this offence he was tried a day or two afterwards at Rotherham, and, being convicted, was sentenced to one month's imprisonment. Between that time and the date of his admission into the asylum, he was in the hospital of the Wakefield House of Correction, and whilst there is said to have been quiet, but weak-minded, and having exalted ideas about seeing the Queen, &c. They gradually perceived, the prison officer said, from patient's manner of behaviour

and conversation, that he was insane. It seemed that patient had been sober and steady for the six months previous to his admission into the asylum, but before that he used to drink a good deal. He had never, however, been in prison before, or committed, so far as could be ascertained, any indictable offence. When he committed the theft of the coals he had no need of any, for there was a good supply in his house; and instead of taking waste coal from that portion of the heap which was open to the families of *employés*, patient penetrated into the forbidden region of good coal, and brought away a large lump in each hand as much as he could carry, having also at the same time, his pockets crammed full of coal. Before he got home, however, he was apprehended by one of the overlookers, who had followed him. Patient's maternal uncle was insane.

State on Admission.—He is quiet, but considerably demented. He speaks in a slow, child-like manner, and has a more or less imbecile appearance. His statements we find to be untrustworthy as verified by facts. He says, however, that he and his wife are going to visit the Queen. He is very shaky on his legs, and his tongue is very tremulous on being protruded; the pupils are contracted and unequal; but there is little or no quivering of the muscles of the face or tremulousness of the voice observed at present; there are many bruises scattered over the body.

In addition to these cases, I may, perhaps, just transcribe a few notes I have before me of another case of well-marked general paralysis which I admitted into the West Riding Asylum, as illustrating the tendency to the commission of theft which exists in patients labouring under that form of disease. According to the certificate, the facts indicating insanity observed by the medical man were as follows:—"He tells me he is going to fetch forty children from Liverpool to work in the mill, in order that he may live out of their earnings. He cannot tell me the day of the week; cannot recollect the events of the past two days." The facts communicated by others were:—"His wife tells me he is constantly bringing home things that are not his own, such as plants out of a garden, wheelbarrows," &c., &c. This patient had evidently been affected for about six months, on admission, and the wonder is that his larcenous propensities did not land him in prison as in the other cases.

Such, then, are notes of a considerable number of cases recorded as occurring within my own very limited experience. That my experience in this respect is not peculiar I can show by reference to a paper (which I discovered subsequently to penning my former remarks and notes of cases) in the Vol. for 1861 of the "*Annales Medico-Psychologiques*," by Dr.

A. Sauze, at that time Assistant-Medical Officer to the Marseilles Asylum, and medical officer to the prison of the same town, entitled "*Erreurs Judiciaires*"—"Observations de Paralytiques Condamnés pour Vol," and in which he gives details of four exactly similar cases. And without anticipating the results of the experience of my professional brethren present this evening, with which I trust they will favour us, I think I have good reason for venturing to believe that such miscarriages of justice, and punishment of legally irresponsible offenders, are by no means peculiar to one or two parts, but are not uncommon throughout the country. Such being the case, then, the question as to how far similar errors may be prevented for the future is, it appears to me, one which in the best interests of humanity I may well bring before you on this occasion for discussion.

It is not a difficult thing to understand how, in cases of general paralysis of the insane, a propensity to steal may arise; given the abnormal exaggeration of the ideas as to wealth and property, and the blunting of the reasoning faculties and inability to properly comprehend consequences, so commonly associated together as mental symptoms of that disease, and we have all that is necessary for the origin of a strong predisposition to acts of larceny. The mental condition in general paralysis is one that is well calculated to pervert or weaken the normal ideas as to *meum* and *tuum*. Fortunately, from the peculiar physical or bodily symptoms of the disease always associated with the mental aberration in this form of insanity, there is not that difficulty in establishing the plea of insanity in cases suffering from it, as exists in those cases where the larcenous propensity is a mere monomania, and which are of exceeding rarity. The physical symptoms may even precede any appreciable abnormal mental manifestation, and, altogether, the symptoms are so well marked and peculiar, and the progress and fatal termination of the disease can be so readily and accurately prognosed, that it is quite removed from the domain of legal quibble. My critic in the "*Pall Mall Gazette*," to whom I have referred, tells us that exaggerated ideas as to wealth and property are common amongst sane criminals—notably bank forgers, for instance—and not uncommon, he thinks, in the City; and the blunting of the reasoning faculties and inability to properly comprehend consequences he considers to be only another name for the inference that the perpetrator of a crime defies consequences. It would be easy to retort

upon our brethren of the legal profession, and inform them that these mental symptoms must be, and are, taken by the medical expert as they invariably co-exist with the peculiar physical or bodily symptoms of the disease in pathognomical combination; but would they be able to follow us, if we did so, in our attempt to explain the matter to them in its full bearings? I am afraid not. "Who but a physician familiar with the disease" (to quote the words of the senior editor of our journal in his recent work on "Responsibility in Mental Disease") "can recognise the inequality of the pupils and the peculiarity of the articulation which mark the beginning of incurable brain disease, and give the true interpretation of the theft," when it occurs, as one of the earlier mental manifestations of general paralysis of the insane, in a man previously honest and exemplary in character? The bodily symptoms of this bodily disease can only be properly recognised and appreciated by the medical man; and lawyers, it seems to me, have no more right to assert their contrary opinions and theoretical assumptions, in such cases, in the face of the testimony, founded on knowledge and experience, of the medical expert, than they would have to endeavour to upset the evidence and opinions of the medical expert in a case of poisoning, by obtruding expressions of their own judgment in the matter. In all such cases, it ought to be left to the medical expert, taking all the circumstances of the case into proper consideration, to decide as to the soundness or unsoundness of mind of the person whose responsibility is questioned.

Whilst, then, the peculiar nature of the symptoms of this disease, appreciable only by the medical man, lift it out of the domain of all legal quibble, the very fact that the symptoms are so peculiar and well marked affords all the less excuse for their being overlooked by the medical officers of prisons, as, I am afraid, is not unfrequently the case; and though I don't consider we ought too hastily to blame our brethren out of the specialty for their not perhaps being able to diagnose the disease so readily as we; yet, nevertheless, it may be that you will agree with me in thinking that the continued occurrence of the imprisonment and detention in prisons of general paralytics for larceny serves to demonstrate the necessity for a more careful examination into the mental and physical condition of prisoners at the time of their admission into prison, and for a more practical and efficient knowledge of mental and cerebral diseases amongst medical practitioners generally,

and more particularly so amongst those who have specially to deal with our criminal population. Were such requisite and special knowledge demanded of all candidates for a degree or diploma in medicine, and the curriculum and lectures arranged accordingly, there would be no grounds for the excuse which can, at present, be justly urged for such deficiency in knowledge as to the symptoms of one of the most fatal and common forms of organic cerebral disease, which almost invariably give rise to mental alienation and consequent irresponsibility as to crimes which may be committed during the progress of the malady. To such defective knowledge, or want of proper examination into the prisoner's mental and physical condition, one is compelled to attribute these continued miscarriages of justice and this unjust punishment of criminal patients labouring under a disease with peculiar and well-marked symptoms, and which could have been readily diagnosed—there is reason to believe—on admission into the prison, in any of the cases that I have drawn attention to, after a proper and careful examination of the patient by any medical man having a fair knowledge of its nature and symptoms. A careful attention to the articulation of the man as he speaks, a look at his protruded tongue, and a glance at the muscles of the face, constitute all the examination that would be required to detect the earliest physical symptoms of the disease; whilst a look at the pupils and at the gait of the man in walking would give important indications in more advanced cases. It must, of course, be granted that in many such cases there might be considerable difficulty and doubt as to diagnosis; in which case one might, I think, very well give the prisoner the benefit of the doubt, and keep him in the hospital of the prison under close observation for a time, and until, at any rate, an inquiry had been made into his history, where such could be obtained. This was done in one of the cases I have just reported, in which the patient had been certified as insane previous to his admission into the gaol; but the man was sent to the asylum some time afterwards, having shown, as was stated by the medical officers of the prison, no symptoms of insanity, though on admission into the asylum there was no difficulty in perceiving the real nature of the case, and his undoubted insanity. Anybody can diagnose a case of raving madness; but it requires some special medical knowledge to enable one to arrive at a proper diagnosis in the earlier stages of General Paralysis of the Insane. The now almost universal institution of courses of

Lectures on Mental Diseases in Medical Schools, after the example wisely set by the University of Edinburgh, in the person of Prof. Laycock, one of our late presidents, appears to me to be a very necessary step in advance, and one that is evidently much called for; but it is very doubtful whether or not the information so offered will readily be taken advantage of unless attendance on such lectures is rendered compulsory, and a fair knowledge of the subject of such lectures demanded of all candidates for a degree or diploma in medicine; and herein is the indication for a further and necessary step to be taken. How can a medical practitioner be considered as fully equipped for general practice without a proper knowledge of the symptoms of the abnormal function, due to disease, of the most important of all the organs of the body, viz., the *brain*? What trouble, and annoyance also, has been, and continues to be, caused by a want of the requisite information as to the legal and other technicalities to be observed in the filling up of a certificate of mental insanity, all of which information should be, and is, properly included in a course of Lectures on Mental Diseases with clinical instruction. Such a knowledge of mental disease is all the more necessary amongst general practitioners, inasmuch as it rests with them in the first instance to diagnose and certify to the insanity; and such an improved knowledge of mental diseases, generally diffused, would probably lead to the earlier diagnosis of insanity, and consequently, as experience teaches us, to its more successful treatment.

I have ventured to lay these few additional cases before you, and to comment upon them, thinking they might not be altogether out of place or uninteresting at a time when responsibility in mental disease is a subject that is being actively re-examined with a view to the more satisfactory solution of the many questions concerning it, which are, at all times, of very considerable, and, at some times, of even *vital* importance, as to the issues involved; and, in concluding, I beg most respectfully to submit to you that such repeated miscarriages of justice (as those to which I have referred) and infliction of punishment on patients suffering from a form of disease which renders them irresponsible offenders, and in which the symptoms are so palpable and peculiar, can only be excusable on the ground of that ignorance, which I trust is being, and will continue to be, removed, in the way indicated, to the benefit of suffering humanity and the credit of the profession.

Case of Tumour of the Brain. By DR. F. A. W. SKAE, Stirling County Asylum.

Daniel Kenny, æt. 60-70, admitted 22nd July, 1873, quarryman, married, first attack, which has lasted two months; no insanity known to be in the family; has always been a sober, respectable man. About the end of January began to complain of pain in the right side of his head, and used to ask his wife to put her hand there and feel if there was nothing unusual. He was a little irritable and down-hearted, but his wife did not notice anything further wrong with him till 14th May. On that day he came home from the quarry at two o'clock, complaining of great pain in his head. He had felt light in the head and dizzy, and appeared pale and faint when at his work, so that the overseer sent him home. He went to his bed, and had convulsions three times. He then became excited and wanted to get out, but his arm and leg were paralysed. His mind was quite changed after the fits, and never returned to its former condition. He was now unable to speak distinctly, except in short snatches. He could curse and swear freely; and when pressed to take food he would say no, or "I am not hungry," or "don't bother me." Once again, about 14th June, he had another slight fit. He gradually got worse, and more difficult to manage. He would not take his food—did not seem to have the sense to do so, and if left to himself would stuff the bed-clothes into his mouth. He recovered a little from the paralysis, and generally at four in the morning, his habitual rising hour, he attempted to get up and go out to his work. On the 12th July, he had got up, and was fumbling with a heavy block of wood, which he mistook for a crane; he fell and hurt his arm, after which he kept his bed. He continued very restless, and in a state of total confusion; working with the bed-clothes as if they were stones which he was hoisting up by the crane; swearing and shouting directions to his fellow workmen, and quite unable to recognise his wife.

On 12th July certificates of insanity were granted, in which he was stated to have a flushed excited look, to be very restless, tearing the bed-clothes, unable to understand or answer questions, and speaking in a very incoherent manner.

On admission (22nd July) he was found to be an extremely frail old man, a little flushed in the face, with a restless, uneasy expression, partially paralytic on the right side, and unable to walk without assistance. There was a large abscess on the right fore-arm, which was afterwards found to have resulted from a fall. His mind appeared an utter blank. He did not seem able to form the faintest idea of what was said to him, nor of anything that was going on. Any broken attempts he made to speak were quite unintelligible. No inequality of the pupils or facial paralysis was observed.

28th July. Hitherto there has been no alteration in his condition, except increasing feebleness. His mind is impaired to an extreme

degree. His wife has visited him, but he did not know her. His occasional efforts at speech are quite unintelligible. He does not appear to have either memory or understanding, and cannot even perform habitual mechanical acts, such as feeding himself; when permitted to try this, he simply splashes his hand or spoon about in his plate, and does not know how to proceed any further. He is very restless, impatient, and irritable; sits all day in a chair constantly working away with his clothes, apparently wishing to take them off or tear them. The abscess in his arm appears to cause him pain; he sometimes roars and swears a good deal when being moved; he wets himself both night and day. This evening his left hip was found to be slightly red and swollen, apparently the result of his so frequently wetting himself.

30th July. Erysipelas rapidly extended downwards as far as the foot, and he died this morning at 5.25 a.m.

31st July. *Post-mortem* examination at 6 p.m. Body emaciated; erysipelas extending from the left ankle to the trunk above the iliac crest.

Head.—Dura mater rather firmly adherent to the skull-cap. A tumour was found growing from the upper surface of the tentorium into the substance of the posterior lobe of the left cerebral hemisphere. It had a gelatinous consistence, with fibrous knots at intervals in its substance, and was about the size of a hen's egg. It had extensively destroyed the grey matter of the under surface of the lobe, as well as a large portion of the white substance, but it did not reach to within half an inch of the grey matter posteriorly or superiorly. It was confined to the superior aspect of the tentorium, and did not affect the cerebellum or the lateral sinus.

No other organs were found diseased.

The seventh and eighth ribs on the right side had been broken about three inches from their cartilages, and had begun to reunite.

Weight of Organs.—Encephalon, $56\frac{1}{2}$ oz.; heart, 12 oz.; right lung, $16\frac{1}{2}$ oz.; left lung, 15 oz.; liver, 39 oz.; right kidney, $4\frac{1}{2}$ oz.; left kidney, $4\frac{1}{2}$ oz.; spleen, $3\frac{1}{2}$ oz.

Case of Ataxic Aphasia, with Autopsy. By W. JULIUS MICKLE, M.D., Medical Superintendent, Grove Hall Asylum, London.

Ataxic Aphasia; no agraphia; incomplete dextral hemiplegia; dementia. Autopsy. Cerebral arteries greatly thickened; left middle cerebral artery degenerated; lesion of left corpus striatum; no gross lesion of frontal convolutions, or of insula on either side.

Edward B., *at* 34, a driver in the Royal Artillery, was admitted into Grove Hall Asylum on March 14th, 1873, having previously been

under treatment at Aldershot and Netley. The symptoms appear to have arisen suddenly in September, 1872, while he was taking part in the "autumn manœuvres." Dysphasia, dysphagia, and tendency to right hemiplegia were noticed at first; and, subsequently, great apparent mental weakness, loss of memory, disregard for decency, and outbursts of causeless anger and violence. When he entered this asylum the features were bloated and flabby, the lines of expression were partially obliterated, and the general appearance was one of fatuity. Speech was abolished; a few unintelligible sounds alone were uttered. The grasp of the right hand was the weaker, and the right foot dragged in walking. There seemed to be loss of memory;—he gave me to understand by signs that he had been eight months at Netley (really two and a-half) and seven days here (really one day). Both loss of speech and paralytic disability diminished somewhat, and with equal steps, and two months after his entrance there were noted as follows:—

Appearance still rather fatuous. Mumbles unintelligibly in response to questions. Tries to speak when prompted, but can only occasionally produce a faint approximation to the sound of a monosyllable or longer word he is endeavouring to pronounce after me; and the request that he should repeat a short sentence, uttered slowly and distinctly in his hearing, elicits from him a confused and unintelligible mumbling only. When told to count, or to name a series of articles placed before him, the proper words appear to be present to his mind, an earnest attempt is made to utter them; they are confusedly shadowed forth in speech, but never enunciated. There is no agraphia. Though disinclined to express himself by writing, he can do so, both voluntarily and to dictation. He writes slowly with the right hand; the writing is shaky, though perfectly legible. On request he writes his name and such sentences as below—the facts, but not the formulæ in which they are expressed, being suggested to him as convenient for graphic representation—"Joined 1st of December. 1 January, '60. Royal Artillery, Woolwich." "London is the capital of England." Every direction given to him is obeyed, though slowly. He employs scarcely any gestures to explain himself, but sometimes his sole means of assenting is by nodding the head. The left side of the mouth is a little drawn up, and, contrary to what might be expected, the uvula tip is turned slightly towards the left, and the right side of the palatine arch is the higher and wider. Tongue tremulous, protruded rather imperfectly. The right upper extremity is the weaker, the hands chilly, the right hand and forearm bluish. The right leg is not so disabled as formerly, but still drags in walking, while now and then he sways towards the right side during progression, but hitherto has been able to recover his balance by an effort, and save himself from falling. He never becomes excited here, but is obedient and impassive. He plays at draughts and dominoes, and plays them correctly.

Iodide of potassium was given. Subsequently he grew more paralytic

and feeble, and finally was bedridden. Pulmonary congestion and œdema preceded death, which took place on January 29th, 1874.

Autopsy thirty-seven hours after death. Omitting details it is only necessary to state that the arachnoid covering the superior and lateral surfaces of the cerebrum was thickened, presented a slight milky opacity, and had beneath it a little serum lying in the sulci. The pia mater over the same region was thick, hyperæmic, œdematous. The combined membranes were stripped off with ease. Convolutional grey matter rather pale, but everywhere apparently of the usual depth, consistence, and stratification. White matter punctated. Ventricles large; fornix softened; dark clot and fluid blood in the veins of the left lateral ventricle—a condition less marked on the right side. Olfactory bulbs wasted, adherent to gyri. The arteries at the base of the brain are *extremely* thickened. The right cerebral artery is empty, the left contains a dark *post-mortem* clot. The latter vessel presents a brownish discoloration and localised degeneration of its walls for about one-third of an inch of its length, in the Sylvian fissure, just on the distal side of the point where it gives off the branches destined to penetrate the substantia perforata. At this patch of discoloration the arterial wall is greatly thickened, its calibre encroached upon, its elasticity impaired. The intra-ventricular portion of the left corpus striatum is atrophied, and a buff-coloured degeneration presents itself at the anterior part of the superior surface, which is rather shrunken and collapsed. On section the lesion is found to destroy the texture of a large portion of the striate body throughout its entire thickness, but is quite confined to this ganglion, and does not involve in the slightest degree either the frontal convolutions or the insula of Reil. The section is yellowish and tough, and under the lens the channels for the nutritional vessels appear very wide. Cerebrum 42 ozs. Cerebellum 5 ozs. Pons and medulla oblongata 7 dr. All the viscera were examined, but nothing need be noticed here save that the heart weighed 9 ozs.; its valves were healthy, but its muscular tissue was rather soft and flabby.

The above case is complicated by the marked mental impairment, the chronic periencephalitic changes, and the parietic condition; but there seems to be no necessary association between these and the failure of speech present. Though enfeebled, the muscles engaged in articulation were not paralysed.

The bearing of a single autopsy on the vexed question of the localisation of speech can be but slight, especially as pathologists are not agreed as to whether there really is any locus or centre for articulate language. If we presume that the corpus striatum lesion alone produced the aphasia, and look at the above necroscopic record in its relation to the several theories of the localists, as to the particular site of

the speech-faculty in the encephalon, it would appear that it is not opposed to the theories of Bouillaud, or of the elder Dax; is in contradiction with those of Broca and Dr. Wm. Ogle, of Dr. Sanders, and of Dax the younger; but seems in unison rather with the suggestion of Dr. Bastian, or of Drs. Batty Tuke and Fraser, and, possibly, with that of Dr. A. Robertson, inasmuch as the corpus striatum ends of the efferent fibres *may* have been implicated. An interesting fact was the absence of agraphia in this instance, while the power to co-ordinate the movements necessary for the production of speech was almost completely in abeyance. It did not, however, seem to give any clear testimony with relation to the position of a supposed co-ordinating centre presiding over the movements of articulation. The paretic state of the facial, hypoglossal and glosso-pharyngeal nerves might, perhaps, induce some inclination to explain this case by the hypothesis of Van der Kolk that the olivary system is the co-ordinating centre for speech.

The Result of a Post-Mortem Examination on a Hydrocephalic Idiot (Congenital). By WILLIAM T. BENHAM, M.D., Pathologist, West Riding Asylum, late Assistant Medical Officer, City and County Asylum, Bristol.

Mary M., æt 14, was admitted into the Bristol Asylum July 15th, 1862. She is described in the case book as having a hydrocephalic cranium, measuring "24 inches in circumference, and 14 inches over vertex." Trunk shortened and thickened; legs doubled up on the thighs, which were again slightly flexed on the abdomen. Quite unable to walk or stand, but could sit comfortably in a low chair. She possessed considerable intelligence; knew the name of the place from whence she came, and answered simple questions in a lively manner. Had her bodily health and education have been well attended to, it is probable that she would have possessed a fair amount of mental power. She was dirty in her habits, but of a tractable disposition, and good tempered. During the year following her admission attempts were made to teach her to read, but without success; she, however, soon learnt to be cleanly in her person and habits.

On February 18th, 1865, she menstruated for the first time, and three days after was seized with severe epileptic convulsions, and on each return of the catamenia, which, until October of the same year, recurred at irregular intervals, these were repeated, she sometimes

having as many as six to seven fits a day during the continuance of the menstrual flow. After this date, however, she was most regular in her catamenial periods, and from that time, until her death, she never had another epileptic fit. A few days before her decease she complained of severe pains in the head, and great weakness, and it was found that she had considerable anasarca of the lower extremities. She died on the 14th January, 1874.

Autopsy 30 hours after death. Weather cold. The body was found well nourished, and covered with fat.

Thorax was found to be remarkably deep and barrel-shaped.

Heart, normal; pericardium contained 2 oz. of clear fluid. The *right lung* was tubercular, utterly collapsed, and could not be removed from close adhesion to the wall of the thorax. The left lung was infiltrated with tubercle at the apex. There were about 6 ozs. of fluid in the left pleural cavity.

Abdomen.—The liver weighed 48 ozs., and was a fine specimen of fatty degeneration. The left kidney (26 ozs.) and the right kidney (36 ozs.) were a mass of large and small cysts, unicellular, and filled with fluid of the same specific gravity as that found in the ventricles of the brain.

The ureters were thickened, and much larger than normal.

The peritoneum was thickened, and the whole of the connective tissue in the abdominal cavity was much hypertrophied. The peritoneal cavity contained 6 ozs. of fluid. The intestines were healthy, but there were numerous old adhesions.

The uterus was normal, but the ovaries were completely filled with tubercular deposit.

Head.—The head was very large, and measured, outside the scalp, 26 inches in circumference, 15 inches over vertex from ext. meatus to ext. meatus, and 17 inches from root of nose to occipital protuberance. The skull cup was thin, but symmetrical. The internal surface of the skull was very smooth. The coronal suture was the only one not completely formed and capable of separation.

The dura mater was adherent, but of normal thickness. There was no thickening, or opacity of the arachnoid or fluid in its cavity. The pia mater was normal.

The whole brain weighed 90 ozs., but on puncturing the ventricles 50 ozs. of clear fluid escaped from them, leaving the weight of the brain matter 40 ozs. The grey matter was nowhere more than the $\frac{1}{16}$ th of an inch thick, and the sulci were so shallow as to be hardly discernible. The grey matter and corpus callosum forming the roof of the ventricles were, together, only the thickness of $\frac{3}{16}$ ths of an inch. The lateral and posterior ventricles communicated so freely as to form one huge cavity.

The optic thalami were very small; the choroid plexus pale, but healthy.

In the right hemisphere of the cerebellum was a hard cheesy de-

posit of the size of a thrush's egg, which was adherent to the dura mater covering the floor of the posterior fossa.

The specific gravity of the fluid in the ventricles, in the pericardium, pleura, peritoneal cavity, and forming the renal cysts, was, in each case, 1006, and contained albumen and salts (chiefly chloride of sodium).

Remarks.—This case presents so many points of interest that space will not admit of a reference to more than one or two of them. It is especially interesting to notice the intimate relation there here was between epilepsy and catamenial flow. At the first menstrual period, epilepsy occurred, and in a severe form; and so long as the menses recurred at *irregular* intervals, epileptic fits were the invariable accompaniment; but directly they became and continued regular, the fits at once departed. A close connection is thus seen to exist between these phenomena, and the conditions necessary for the production of both of them were the same, or, being dissimilar, at any rate were co-existent at the same time. Such facts are, I think, well worth recording, and a collection of similar cases could not fail to be of great pathological value.

Although the quantity of fluid found in this case will not compare with the extraordinary quantity found in two cases mentioned by Trousseau—20 lbs. and 30 lbs. weight respectively—yet it must be regarded as very large, and it is worth noticing that the whole of the fluid was here contained in the ventricular cavity; none being found in the arachnoid.

A few days prior to death there seems to have been a sudden accession of serous effusion in different parts of the body, and it is probable that owing to this condition of things the fluid contained in the brain also received a sudden accession, which, owing to the hardness of the case which surrounded it, caused that compression of the brain from which the patient sank and died.

It is interesting to notice that no symptom was produced during life by the presence in the cerebellum of the tumour, evidently of comparatively recent formation, found there after death; and it is altogether extraordinary that notwithstanding the large amount of disease found to exist in different parts of the body, the patient continued in plump condition, and was in fairly good health, until a few days before her decease.

By a reference to the figures it will be seen that from the admission of the patient at the age of fourteen—a period of

nearly twelve years—the size of the cranium increased two inches in circumference and one inch over the vertex from side to side. This is not a great increase, and the head was certainly more disproportionate to the size of the rest of the body at the time of admission than at any subsequent period. It is singular that none of the special senses were in this patient absent or impaired, as is the usual case with most hydrocephalics, when at least one—generally more—of the special senses is altogether wanting.

It is worth notice that the fluid in the ventricles was the same chemically as that found in the other parts of the body; that is, it was nothing more than an ordinary dropsical effusion, and which might therefore be produced by the same cause. When this patient commenced to be hydrocephalic, whether it was before the commencement of organic disease of the kidneys or not, there is unfortunately nothing to show.

Case of Syphilitic Insanity. By DR. BATTY TUKE.

(*Case of B. A., continued from page 560, Vol. xix.*)

February, 17th.—Patient was suddenly seized this morning while at breakfast with incessant hiccup, which lasted for about three minutes or so; his fork then dropped out of his left hand, and he appeared stupid, gazing vacantly at his plate, but continuing to put food to his mouth with the right hand, though he was unable to masticate, or even grasp it with his lips. He was immediately taken to bed, and the following is a condensed account of his condition at 9.30 a.m., or half an hour after the seizure, the symptoms all becoming gradually developed up to that time.

Motor power of left arm and leg was much impaired, the arm being more affected than the leg; patient was unable to walk or use the left arm, though he could move both extremities a little. The face was very much drawn to the right side, the tongue was protruded to the left, the eyelids of the left eye remained half-closed, and offered no resistance when separated, while those of the right eye were tightly closed, and strongly resisted any attempt made to separate them, so that the condition of the pupil could not be ascertained. The left cheek was blown out at every expiration, and the lips of the left side remained motionless, while those of the right side were moved when patient attempted to speak. The power of deglutition was impaired; patient could only mutter indistinctly. Sensation of the left side of face was completely lost, and that of the left arm and leg was much impaired; sensation of the left foot remained normal, as on being touched patient drew up his leg a little, or moved it away from the

irritation. Patient was unconscious, breathing inclined to be stertorous. Pulse 80, regular, of fair strength.

11.30 a.m.—The muscles of the left arm were not flaccid (as they were early this morning, when the arm could be moved about without resistance), on the contrary, the fore-arm was semi-flexed on the upper arm, and strongly resisted when extension was made. The finger could be moved about freely, as also could the hand. The muscles of the left leg were in much the same spasmodically contracted state. Temp. right axilla, 98.4; left axilla, 97.2; the left side felt distinctly colder to the touch than the right.

4 p.m.—The spasmodic contraction has extended to the muscles of the left fore-arm, as the hand and fingers now resist movement being made. Patient has been troubled with hiccup and occasional vomiting. Urine and fæces passed involuntarily in bed.

10 p.m.—Patient remains in much the same unconscious state; the spasmodic condition of the muscles is the same. Pulse 84.

February 18th.—Patient has had a restless night, vomiting continues at intervals; he is unable to take much nourishment, as power of deglutition is so much impaired. Pulse 84, regular. Patient mutters indistinctly, but appears a little more conscious than yesterday. Motor power is much the same, and the spasmodic condition is present, though in a less degree. Face is not so much drawn to the right side, but the cheek is blown out in the same manner at every expiration. Sensation of left side of face is completely lost, while that of the right side is abnormally increased. Temp. right axilla, 98 F.; left axilla, 99 F.

Vesp.—Patient is a little more conscious, otherwise much the same.

February 19th.—Patient has passed a restless night, the vomiting continues at intervals. Pulse 88, weaker than yesterday. Breathing is deep, but in no way stertorous. The motor power of left leg is improved, and patient can draw it upwards in bed of his own accord. The spasmodic condition of the muscles is not so well marked, and the left arm lies at the side with only slight power of motion.

February 20th.—Patient has slept at intervals during the night, the vomiting has ceased, and he is able to take more nourishment, though only in a fluid form. He is more conscious this morning, and has asked for "water," &c., though the pronunciation is very indistinct. Pulse 80.

Vesp.—Patient has had a quiet day, and as the power of deglutition has improved, he has taken more nourishment than he has ever done since his seizure. Vomiting has entirely ceased. He has been much more conscious, and able to speak better; thus he said, "useless," pointing to the left side, and then placed his hand on the right side of his head when asked where he felt pain; he was also able to recognise his relations to-day, and told them he felt very ill. There is now marked spasmodic contraction of the muscles of the left arm and leg, also of the muscles of the back of the neck, and those connecting the left arm to the trunk. This condition began about 6 o'clock this

evening, with a slight tremor in the affected muscles, and gradually increased up to the present condition. Patient keeps jerking his head backwards into the pillow; the arm and leg are also jerked about to the extent that the bedclothes are often thrown off his body and frequently over the bed.

Pulse 88, regular. Patient is not now so conscious as during the day.

February 21st.—The spasmodic condition lasted until about 2 a.m., when it gradually subsided. The left extremities are now more completely paralysed than ever they have been, and the sensation is entirely lost. Patient is unconscious. From this time he gradually became weaker, dying in a comatose condition about mid-day of the 23rd February, 1874.

Post-Mortem Examination 24 Hours after Death.—On removing the skull cap in the usual manner the dura mater was found to be generally adherent. The convolutions were flattened, particularly near the vertex; the veins between the sulci were engorged, while the larger sinuses were deficient in the amount of blood they contained. Slight milkiness of the arachnoid was observed, and along the course of vessels distinct white lines were well marked.

In the sulci of the more dependent convolutions, *e.g.*, at the dependent portion of the intra-parietal fissure, small and localised atrophies existed.

On removing the brain the coats of the arteries were found to be much thickened, the vessels remaining distinctly patent. On the basilar artery large deposits of a yellowish colour were found. The middle cerebral arteries on being traced into the fissure of Sylvius on both sides were seen to be the seats of this deposit in a marked degree, and might be spoken of as moniliform in appearance. The pia mater was non-adherent, in consequence of the irregularity of the deposit. Gray matter was dark, and the convolutions were deep.

On slicing the brain in the usual manner from the vertex towards the base, there was found in the centre of the occipital lobe of the right hemisphere a clot of coagulated blood the size of a walnut; below this level and on a level with the corpus striatum a large narrow clot was found, measuring between five and six inches in length, and about one and a quarter inches in breadth, extending from about an inch from the anterior tip of the frontal lobe to about the same distance from the tip of the occipital lobe, and being bounded on the left by the motor tract, which was not implicated. The white matter around the clots was generally soft and of a yellowish tinge. The large clot was unconnected with the smaller one, and was further from the vertex, or on a lower level.

In the left hemisphere a yellow softening, irregularly round in shape, and about the size of a large walnut, was found impinging on the corpus striatum, and involving the extra-ventricular nucleus and claustrum, extending to within a few lines from the grey matter of the

surface. The diseased tract was surrounded by a thin wall of indurated brain tissue, its contents being diffuent and of a yellowish colour. Spinal cord apparently normal.

Heart.—Left ventricle was found to be hypertrophied and the walls were friable. No valvular disease existed.

Microscopic Examination.

1. *Pia Mater.*—The muscular coats of the vessels were much thickened, and at some parts swellings were seen, consisting apparently of molecular matter.

2. In the grey matter large bodies covered with pigmentary degeneration were seen of the size and shape of cells, and in some of them a nucleus could be detected.

3. In the softened portion of the left hemisphere a few compound granular cells were seen, and the field of the microscope was occupied by minute oil globules. In the right hemisphere the yellow softening around the clots presented no compound granular cells.

4. No aneurisms were detected on the vessels in the neighbourhood of the clots.

5. The adductor pollicis muscle was examined, and the fibre was found to be in a perfectly healthy condition.

Portions of the brain were taken from the occipital, parietal, and frontal lobes; from the neighbourhood of the degenerated tract and either clot; from the corpus striatum, cerebellum, pons, medulla, and spinal cord. These were hardened in chromic acid in the usual manner, cleared with turpentine, and set up in gum dammar.

Frontal Lobe.—Muscular coats of the arteries were considerably thickened, and the walls of the capillaries were well defined.

Ascending Parietal Convolution at Vertex.—In transverse section of the arteries the muscular and outer fibrous coats were found much thickened; the latter existed in concentric rings, between which lay finely molecular bodies, in some respects resembling small corpora amy-lacea; in some instances spaces existed between this thickened fibrous coat and the brain substance. Occasionally this space was empty, in others a very fine gelatiniform substance was observed. In many of the smaller arteries perfect occlusion had taken place; the larger ones were filled with blood corpuscles. The muscular coat of the arteries of the pia mater was very much thickened. On the base of the large cells of the fourth and sixth layers a coarsely granular fuscous deposit was universally observed. In some instances this had gone on to complete destruction of the normal appearances of the cell, in others the nucleus was the only part unaffected.

Occipital Lobe.—On the vessels of the third occipital convolution the amyloid-looking bodies were more thoroughly defined, and a greater number of the vessels seemed to have undergone occlusion than in the anterior portion of the brain.

Cerebellum.—The vessels of the pia mater were much affected. Cells of Purkinji were unaffected.

Right Corpus Striatum.—The diseased condition of the vessels was more thoroughly marked in this position than in any other, and the capillaries were likewise very strongly defined. The muscular coat of one artery was seen to be at least four times thicker than normal. There was a general increase of the nuclei of the neuroglia.

Left Corpus Striatum.—In a portion taken from the neighbourhood of the degenerated tract a similar condition of the vessels was found. It may be generally stated that the nearer one approached to the diseased tracts the more marked was the disease of the vessels. Immense deposits of hæmatoidine were found immediately below the ependyma ventriculorum and in the perivascular canals.

Pons.—The vessels were much affected in a manner similar to the condition already described. The large cells were immensely affected with fuscous degeneration. The transverse fibres were of a yellowish tint, refusing to take on colouring matter. The same description applies to the medulla oblongata.

Spinal Cord.—Vessels were markedly affected. Cells of the posterior vesicular column were seen to have undergone partial or complete fuscous degeneration. In the posterior column large deposits of true corpora amylacea were found. The specimens taken from all parts readily absorbed carmine.

OCCASIONAL NOTES OF THE QUARTER.

The Budget and Pauper Lunatics.

As might have been expected, the advent of a Conservative Government was the signal for an attempt being made to relieve local taxation; and the overwhelming majority by which Sir Massey Lopes' resolutions on this subject were passed two years ago, pointed to the maintenance of pauper lunatics as being one of the burdens that should be partially, or entirely, removed from local, and placed on imperial taxation. Accordingly, in the Budget introduced by the Chancellor of the Exchequer, on the 16th of April last, it was proposed that four shillings a week should be paid from imperial resources to each union in the United Kingdom, for every lunatic in the county or borough asylums, and subsequently Sir Stafford Northcote fully explained that this subsidy would not be allowed either for pauper lunatics in lunatic wards of workhouses, or for lunatics boarded out with friends or others, or for those in the Metropolitan Asylums at Leavesden, Caterham, and Hampstead. The arguments for and against this scheme are rather nicely balanced, and until it has had an extended trial of three or four years it will be difficult to

decide whether its effects will be good or bad. It has been surmised that the result will be to induce Boards of Guardians to direct their officials to send acute and recent cases of insanity at once to the asylum, instead of retaining them, as is too frequently done, in the workhouse, until they become chronic; but it seems to have been forgotten that the union medical officer is the person who usually decides on the course to be adopted, and, moreover, that if the guardians are induced by the proposed subsidy to order acute cases to be sent at once to the asylums, the same motives will also prompt them to send off the idiots, imbeciles, and troublesome and chronic lunatics, now in workhouses or boarded out.

It appears to us that this would be an evil of great magnitude. It may, and indeed no doubt is, a matter of question whether any lunatics should be retained in workhouses, but that all the county asylums should be crowded up with idiots, demented, and imbeciles would be intolerable. Why should the County Lunatic Asylums be treated in this respect so differently from the County Hospitals? Are cases of physical disease, after they become chronic, ever allowed to remain in ordinary hospitals? Certainly not. If workhouse wards are not proper receptacles for chronic and harmless lunatics, and if they do not receive proper skilled medical treatment therein, let such asylums as those of Caterham and Leavesden, which for their purpose are admirable, be multiplied throughout the land; but we hope the day is far off on which it will be incumbent on the county asylums to receive all cases of insanity. Unless, however, the Government proposal be considerably modified next year, when the subject of local taxation is again to be brought forward, there is every prospect of the fears above stated being verified.

After all, however, the question, as is the case with most sublunary matters in these practical days, will in all probability resolve itself into one of money. If the local authorities find that it will be more immediately economical to send their insane poor to the county asylum rather than to retain them in the union houses, they will not be deterred by any ulterior fears of the county authorities having to enlarge the asylum from doing so. The effects of the passing of the Irremovable Poor Act of 1861 have been often adduced as an instance of this short-sighted policy of local authorities of limited areas.

This Act, we need scarcely remind our readers, was passed for the purpose of transferring the chargeability of lunatics from the parish poor rates to the common fund of the unions,

and though no immediate effect was apparent, in the course of two or three years the admissions in asylums were largely increased. This is only what might be expected. Thought in Bumbledom is of slow growth, and it would take a year or two for guardians to get the workings of a new act into their heads.

In No. LXIX. of this Journal, in an article on "The alleged Increase of Lunacy," appears the following paragraph and table. We are not aware that the facts therein stated have ever been successfully refuted:—

The large annual increase of admissions in 1863-4 and 1864-5 are doubtless connected with the operation of the provision of the Irremovable Poor Act of 1861, which placed the cost of the maintenance of pauper lunatics on the common fund of the union, and removed the inducement in individual parishes to retain their insane poor at home, with a view of saving the local rates.

TABLE showing the ratio per cent. in the Increase of the admissions into the Asylums of England and Wales in the decennium, 1858—68.

YEARS.	Ratio of increase per cent. in the admissions into asylums.
1858—9	11·7 per cent. increase.
1859—60	1·5 „ increase.
1860—61	3·7 „ decrease.
1861—62	1·6 „ decrease.
1862—63	2·4 „ increase.
Average annual increase in the five } years, 1858—63 ; }	1·2 „ increase.
1863—64	9·4 „ increase.
1864—65	10·4 „ increase.
1865—66	3·6 „ decrease.
1866—67	5·2 „ increase.
Average annual increase in the four } years, 1863—67 }	5·3 „ increase.
Average annual increase in the nine } years, 1858—67 }	3·0 „ increase.

The Chancellor of the Exchequer has recently stated to a deputation that he thought the fear of having to spend money on enlarging the asylums, if the chronic cases were crowded into them, would deter the Guardians from adopting so suicidal a course. But if parishes were not deterred in 1861, unions are not likely to act differently in 1874. Besides, having to pay a slightly increased county rate of, say one farthing, for the enlargement of the asylum, would be repaid amply by the four shillings per week per patient they are to receive. Thus, for example, the County of Blankshire has one thousand lunatics; of these six hundred and fifty are in the asylum. To provide asylum accommodation for the other three hundred and fifty would cost, at the most, £100 a bed, say £35,000. But, having complied with the Chancellor's requirements, the union authorities would be entitled to four shillings a week (equal to £3,640 a year) for each of these three hundred and fifty patients now sent to the asylum. So that the cost of enlarging the asylum would be refunded to them in less than ten years, and they would be relieved of the annoyance and trouble lunatics in the union houses cause them and their officials.

All this, however, might be avoided if, as was recently proposed in a letter to the "Times," the imperial treasury, instead of paying the subsidy direct to the Guardians for the relief of the maintenance rate, was to hand it over to the Visiting Justices for the purpose of maintaining the fabric of the asylums, &c. If this course could be adopted, all the old incentives to economy would be maintained, and the inducement to local authorities to send harmless lunatics and idiots to the asylums would be no greater than at present.

Dr. Fraser, of the Fife and Kinross Asylum, had an instructive letter on this subject in a recent number of a medical contemporary, in which he showed that the very successful plan of boarding out lunatics, adopted in some parts of Scotland, would, in all probability, be completely stopped by the provision of the budget now under discussion, for it would be as cheap, and much less trouble, for the local authorities to maintain their lunatics in the asylums, and he adduced an instance which had lately occurred, wherein the district authorities had already declined to remove a harmless lunatic from his asylum.

There is, however, yet another temptation which this subsidy will hold out to workhouse authorities and officials. In nearly every workhouse there are at all times one or more

bed-ridden, paralysed, dirty cases sufficiently insane to be certified as such. These have generally ended their days in the workhouses, as the officials would not have dared to face out before the Board of Guardians the expense of sending them to the asylum. But now it will be decidedly cheaper, and a great saving of trouble, to pack them off to the county asylums, where the only effect their advent will have, will be that of raising the mortality per-centages. A pleasant prospect this for the asylums. And to show that these fears are not chimerical, it may be stated that in an asylum with which we are acquainted, out of 35 admissions from April 10th to June 1st, thirteen were so far advanced in disease that five died within a few days of admission, and the other eight cannot last more than a month or two. Three of the rest were idiots. During the corresponding period of last year there were exactly the same number of admissions, but only seven were advanced in disease, and none died. This may only be a coincidence, but it looks suspicious. At all events we think that we have presented matter for grave consideration.

Insanity and Divorce.

Out of five judges three have answered in the negative, and two in the affirmative, the question put to them by the House of Lords in the Mordaunt case. The question was, whether the insanity of one of the parties in a divorce suit should preclude the other party from going on with his suit. Lady Mordaunt having been pronounced insane, the judge of the Divorce Court had decided that the insanity was, so long as it continued, a bar to the husband's prosecution of his suit to obtain a divorce on the ground of adultery; and this ruling was subsequently confirmed by a majority of judges in the full Court of Probate and Divorce—that is, we believe, by two out of three judges. Sir Charles Mordaunt appealed against this decision to the House of Lords, which thereupon called in the assistance of the judges, who have illustrated their perplexity and the uncertainty of law by delivering elaborate judgments on opposite sides of the question. It now remains for the House of Lords to determine whether it will accept the opinion of the majority, in which case Sir Charles Mordaunt may prosecute his suit for a divorce, or that of the minority, when he must remain

without remedy so long as Lady Mordaunt is pronounced insane.

The differences of doctors have long been considered proverbial, but any one who will be at the pains to note how often the judges are divided in opinion in appeal cases, and what throes of intellectual labour they sometimes go through in order to bring forth very remarkable births of legal wisdom, may well conclude that the judges have earned a right to the eminence which doctors have so long had unquestioned.

As it would be a pity that the following instances of judicial subtilty and judgment, which occurred not long ago, should pass out of memory, we take leave and occasion to quote them as they were recorded in the "Times." "Last week all the force of the Common Law Bench united to consider the case of the proprietor of a merry-go-round, and the result was anything but satisfactory. A girl at a fair mounted one of these vehicles of pleasure, giving the proprietor a sovereign, out of which he was to take his charge of a penny, and give back the change. He gave her eleven pence, and said he would hand over the rest after she had finished her ride, but when the finish came he refused to deliver the nineteen shillings. He was indicted for stealing this sum, and a jury found him guilty without hesitation; but the validity of the indictment was reserved to be considered by the majesty of Westminster. After much argument and deliberation, the Judges decided that he certainly could not be indicted for stealing the nineteen shillings; and they gave no hint to show how he could have been prosecuted. Almost simultaneously with this case occurred another, distinguishable from it, but equally perplexing to the Judges. A man went to a money order post office with an order for a few shillings, which he wished to be changed; the clerk, having another order before him at the same moment, referred to its amount in error, and put down on the counter its sum, eight pounds odd, which the man took up, and thereupon walked away. He was indicted for stealing the sum, and again the jury were satisfied of his fraudulent intent, but again the Judges were perplexed to decide whether, according to our common law, a theft has been committed where a man fraudulently appropriates the property of another who has physically offered him the opportunity of appropriating it, but has never in mind or will consented to his taking it. Fortunately, on Saturday, the Court for the Consideration of Crown Cases Reserved seems to have found itself able, after two or three

hours' consultation among the five Judges constituting the Court, to affirm the verdict; but even then 'they were not yet prepared to deliver a formal judgment with reasons for their decision.' It does not appear that the formal judgment with reasons has yet been delivered; no doubt it requires a prolonged and anxious gestation; but is it too much to hope that, when the Judges are formally delivered of their reasons, these may contain some hint to show how the proprietor of a 'merry-go-round' who takes nineteen shillings and one penny out of a sovereign when he is only entitled to a penny is to be proceeded against?

With regard to the question raised in the Mordaunt case, however, it is quite evident that there was ample room for differences of opinion, and that it would have been too much to expect judicial unanimity. On the one hand, it would be very hard upon a husband whose wife had committed adultery, and had subsequently become insane, that he should be compelled to maintain as his child, as well as to receive as his heir, the offspring of her adulterous intercourse, and should be precluded from seeking the relief to which, had she not become insane, he would have been entitled. He has taken her, it is true, for better or for worse, but he might fairly urge that the worse does not include adultery as well as insanity. On the other hand, if he were allowed to proceed with his suit, it is quite possible that injustice might be done to her, seeing that she might, by reason of her insanity, be rendered incapable of giving such explanations of circumstances and such contradictions of testimony as would, if given, destroy all the weight of the evidence adduced in support of the charges against her. She may not, in fact, have committed adultery at all. The charge may be a wicked fabrication. Is the door then to be opened to an unprincipled husband to concoct a false charge of adultery against an incurably insane wife in order to get rid of her? Again, the charge may be a false charge made by her against herself under the influence of insanity, but made with such earnestness and such detail of circumstance as to convince the husband and others of its truth. It is well known that insane women do sometimes make false charges of this kind against themselves, and it is a hard matter in some cases for the most experienced physician to satisfy himself, from mere observation of the patient, whether the self-accusations are the pure result of delusions, or whether there is not some truth in them. The writer has seen at least three cases of

this kind in which he would be greatly puzzled to give a decided opinion one way or the other, and his experience has taught him this caution—never, when signing a certificate of insanity, to put down a self-accusation of adultery as one of the facts indicating insanity. For this event sometimes happens: that a vain and foolish woman, who by reason of some predisposition to insanity is of unstable mental nature, deficient in self-control, with passionate and ill-regulated impulses, commits adultery, and becomes insane soon afterwards, the insanity either being the natural climax of the mental degeneracy, or being brought on by remorse on account of the broken commandment. In this case, it would be rather hard upon the husband if he were refused all possibility of relief. But it would be a still greater hardship upon a suffering wife if she were divorced on the ground of an insane confession of a sin which she had never committed.

Whatever be the decision of the House of Lords, it is plain that it must involve the possibility of injustice to one of the two parties. The question will, no doubt, be decided by considerations having reference to the general welfare of the community. And to us it appears that the predominance of these is in favour of the decision come to by the majority of the judges. Were the opinion of the minority to prevail, the injury to the husband would in some cases be a positive certainty, whereas, if the opinion of the majority be confirmed, the injury to the wife will only be a possibility, which, if due care be taken, can hardly, in any case, reach the height of a serious probability. For although an experienced physician may sometimes have a difficulty in saying from mere observation of an insane woman whether a self-accusation of adultery is a delusion or not, that difficulty would disappear if he were made acquainted with all those facts of her previous history, relating to the charge, which would be given in evidence in a court of justice. And surely the court may be trusted in weighing the evidence in a divorce suit, to which the respondent cannot answer, to take that care which it takes, and to avoid those dangers which it presumably avoids, when a prisoner on trial for his life is undefended.

Since the foregoing remarks were printed, the House of Lords has given judgment, affirming the opinion of the majority of the judges. Sir C. Mordaunt may now, therefore, proceed with his suit for a divorce.

PART II.—REVIEWS.

Principles of Mental Physiology, with their Applications to the Training and Discipline of the Mind and the Study of its Morbid Conditions. By WILLIAM B. CARPENTER, M.D., LL.D., F.R.S., &c., &c. London: King & Co., 1874. 8vo., pp. 737.

An important work on the above subject, by a man so eminent and so various in science as Dr. Carpenter, cannot fail to attract the attention and to be worthy of the study of all those whose work in life is to prevent or restore mind from its morbid conditions, and who fully appreciate the necessity of building the edifice of Mental Pathology upon the sure foundations of Physiological Science.

The history of the work before us is told us by the author in his preface. It has grown out of the interesting and suggestive chapters on Psychology, which formed part of the 4th and 5th editions of his "*Principles of Human Physiology.*" It is, however, more than a physiological treatise. It is an attempt to reconcile the facts of science with the reasonings of philosophy, to bridge over the abyss which yawns between materialism and immaterialism, to find some stand-point for free-will, morals, and responsibility, within touching distance of the brain cells. Quoting from Charles Buxton's "*Notes on Thought,*" the author says—

Irresistible, undeniable facts, demonstrate that man is not a den wherein two enemies are chained together; but *one being*—that *soul and body are one*—one and indivisible. We had better face this great fact. 'Tis no good to blink it. Our knowledge of physiology has come to a point where the old idea of man's constitution must be thrown aside. To struggle against the overwhelming force of Science, under the notion of shielding Religion, is mere folly.—*I'reface*, p. xiii.

It is not always certain, when language like the above is used, whether the writer intends to affirm that the body is the soul or the soul is the body, for there is confusion in using two words for one thing, and especially two words which through all the ages of thought have been held to express such opposite meanings. In a work on physiology, however, it is the body and its functions which has to be discussed, and we should have been glad to have found that

the body, and the body alone, was the subject of this most learned treatise. Such, however, is very far from being the fact, for although Dr. Carpenter enters into no ontological discussions, and rarely mentions the soul under its old name, it is present in most pages of his book under the designation of Free Will. Free Will it is which is the foundation of morals, which renders man responsible for his actions, which gives him the power of forming his own character, which rules and dominates, or at least ought to rule and dominate, all the emotional and intellectual functions of the brain which science shows to be the result of animal chemistry. The autocratic power of the Will is the key-note of the whole book, or the red thread which runs through all its pages, as that Royal mark does through the ropes and cables of Chatham. Memory is a function of the brain, and so also is Judgment, and Desire in all its hues, but the Will is free, if you will only let it be so; free from the embarrassment of corporeal imperfection, and capable of directing and ruling the senses, the passions, and the reason to all the ends and purposes which good theologians pourtray as the right aspirations of the soul.

Dr. Carpenter states that—

“According to the view which it has been *the special purpose of this treatise to develop*, the relation of the Will to mental is essentially the same as that which it has to bodily action. The measure of its exertion will be the sense of effort which we experience in *intentionally* exciting, directing, or restraining any particular form of mental activity.”—P. 138.

The Will, therefore, can direct the mind as it can direct the muscles. It can order the attention, and

“Can detach its subjects, which have at the time the *greatest* attractiveness for it, and can forcibly direct it to others from which their attraction would otherwise divert it.”—P. 38.

If this be true, the Will exists and is free. But is it true? Can any human being intentionally choose the lesser desire, all things being considered, and all forces outside the so-called Will being estimated? This great, greatest perhaps of all questions, is answered by Mr. Mill, and all the determinists, in the negative. Dr. Carpenter takes the opposite view, and founds his mental physiology upon his opinion. He thinks the Will is self-determining, and capable of choosing to be influenced by the smaller attraction, and this con-

stitutes its freedom. But if the Will exists, and is free, what is it? Certainly not merely the "determinate effort to carry out a purpose previously conceived," as the author in the first instance defines it; for this bare determinate effort is the very idea of it propounded by the most logical necessitarian determinists. It is far more than this.

We have now, however, to consider a much more obscure question, namely, the *nature* of the *self-determining agency* to which we give the name of Will. Is it, as some think, the mere resultant of the general (spontaneous or automatic) activity of the mind, and dependent like it upon physical antecedents? Or, is it a power which, being completely independent of these conditions, is capable of acting *against* the preponderance of motives?—as if when one scale of a beam is declining downwards, a hand placed upon the beam from which the other scale is suspended were to cause that lighter scale to go down. Now that the will is *something essentially different* from the general resultant of the automatic activity of the mind, appears to the writer to be proved, not merely by the evidence of our own consciousness of the possession of a *self-determining power*, but by observation of the striking contrasts which are continually presented in abnormal states of the mind between the automatic activity and the power of volitional control (*i. e.*, in toxic delirium). While the weakening of that power, usually in concurrence with an exaltation of some emotional tendency, is the special characteristic of insanity.

Dr. Carpenter proceeds to show how the will can override reason and judgment in questions either of intellectual or moral truth by keeping some considerations out of view, and by fixing the attention upon others; so that in this manner the will determines the balance of evidence which commands belief, as it does the balance of evidence which determines conduct. It is, perhaps, superfluous to observe that this self-determining power which rules the senses, guides the opinions, directs the judgment, and controls the conduct of men, which is something essentially different from the general activities of the mind, and is completely independent of physical antecedents, cannot be a physiological, and therefore must be a spiritual power. And this notion agrees with what we have read in other places than Dr. Carpenter's book on Mental Physiology, and where it has caused us less surprise. Granted,—we have seen it stated,—that perception, memory, emotion, judgment, and all other activities which you more or less successfully demonstrate to be functions of the brain are so in fact, still there is the will. In what ganglion or convolution will you locate that? What

influence has the chemistry of the little cells upon that prime motive power? What can change of structure effect there?

It is autocratic, self-dependent, and, excepting in itself and by itself, unchangeable. It is at least a spiritual force with which body has naught to do. It is the heavenly part of man. It is the soul.

The theological bearings of the question will be somewhat out of place in these pages, but it is worth while to remark that the absolute freedom of the will does not fit in with some systems of theology which are tenaciously held by large numbers of Christians.

Let those who think that there can be no morality and no religion, no foundation for human responsibility, and no basis for a moral code, without Freedom of the Will, read the great work of that grand old Puritan divine, Jonathan Edwards, entitled "A careful and strict Enquiry into the modern prevailing notions of that Freedom of the Will which is supposed to be essential to moral agency, virtue and vice, reward and punishment, praise, and blame." Romans ix., 16, "It is not of him that willeth." Edwards, who has been well compared for his philosophic acumen to our own Berkeley, maintains that—

The decision of most of the points in controversy between Calvinists and Armenians depends upon the determination of this *grand article* concerning the freedom of the will requisite to moral agency.

He argues that God's moral government over mankind is not inconsistent with a determining disposal of all events of every kind throughout the universe.

Indeed (he says) such an universal determining Providence infers some kind of *necessity* of all events—such a necessity as implies an infallible previous fixedness of the futurity of the event; but no other necessity of moral events, or volitions of intelligent agents, is needful in order to this than *moral necessity, which does as much ascertain the futurity of an event as any other necessity*. As to freedom of will lying in the power of the will to determine itself, there *neither is any such thing*, nor any need of it, in order to virtue, rewards, commands, counsels, &c.

The theology of the most numerous and, perhaps, the most earnest sect of Protestant Christians is shewn to be utterly adverse to the doctrine of free will, and it would be equally untrue and uncharitable to deny that the lives of millions of persons guided by these opinions have proved from the Reformation to this hour that the opinion that neither will,

thought, or conduct are free, is consistent with a strict morality.

We have, perhaps, written more than enough for these pages on "the special purpose" of Dr. Carpenter's work, namely, the development of the theory that although the mental functions generally are automatic the will is free. The theory, so far as we can ascertain, is not sustained by any facts fit to sustain an argument of such weight. The assumed fact that we are conscious of freedom and power to act in accordance with our moral judgment is revealed in face of the contradiction which it constantly receives, for the sense of restraint said to be felt by one is at least equivalent to the sense of liberty said to be felt by another. It is even more appreciable. A bird may think itself free to fly where it lists, yet when dropped from a balloon it falls like a stone. Any captive may think himself free until he get to the bounds, and the freest of us all is still a captive—

"And drags at each remove a lengthening chain."

THE TRAVELLER.

"The tendency of the human free will is to fly upwards," writes our author. "It is by the *assimilation* rather than by the *subjugation* of the human will to the Divine that man is really lifted towards God; and in proportion as this assimilation has been affected does it manifest itself in the life and conduct, so that even the lowliest actions become holy ministrations in a temple consecrated by the felt presence of the Divinity" (p. 428). This, however, is not physiology.

Outside the narrow circle where Dr. Carpenter treads the barren heath of metaphysics, tethered to his theory of free will, lies the wide and beautiful world of nature which no one knows better than himself. Naturalist, physiologist, philosopher, philanthropist, there are few men who touch nature, and human nature, at so many points; and there are very few who can illustrate their knowledge from such rich stores of reading and research.

We are not surprised, therefore, to observe an important Journal speaking of Dr. Carpenter's new book as being "as amusing as a novel." Not that novels always are amusing, or that amusement is a proper aim for a scientific work, yet the wealth of illustrative anecdotes scattered through these pages seems to justify the intended compliment of the "Lancet" reviewer. The thought, however, most impressed upon ourselves by Dr. Carpenter's wide acquaintance with

men and books, and the use he has made of it in his abundant illustrations of mental phenomena, is that these phenomena are in their very nature so transitory and fluent that they afford most unsatisfactory data for scientific conclusions. Physical facts can be repeated and verified. Even facts of rare occurrence and beyond the control of man do repeat themselves, and can be waited for. The astronomer, or at least astronomers, can wait for the next transit of Venus, or the next appearance of a comet; but who can be expected to wait for the man capable of "repeating correctly a long Act of Parliament or any similar document after having once read it?" (p. 457); or of that distinguished Scotch lawyer who performed a feat of legal ratiocination while he was asleep, which had baffled the utmost exertion of his waking powers (p. 593). These cases are quoted by the author on the respectable authority of Abercrombie, who recorded them forty years ago, and the time for their repetition has perhaps not yet come full circle round.

Without the opportunity of verification men are apt to accept marvellous statements as to mental facts with a degree of indulgent faith which they would never extend to any physical feats or phenomena. No one would accept the statement that a man had run a mile in two minutes, but that a man had performed a prodigious feat of cerebral exertion far surpassing, in comparison with the average powers of man, the excess of power which this would indicate, will gain ready credence, and find record in repetition without end. We should rather have expected that Dr. Carpenter, dealing with the faculties of mind from the scientific point of view, would have had more vividly before him than appears this peculiarity of the evidence on his subject, and that he would have preferred to choose the commoner and more verifiable facts than the curiosities of mental literature; that he would have directed his research rather to the ocean currents of mind than to the record of occasional floods, transient eddies, and doubtful whirlpools. His method in this respect, we think, is somewhat defective, and method in such a matter is of the very essence of the investigation.

One noteworthy whirlpool of deception and credulity, namely, spiritualism, Dr. Carpenter has investigated here and elsewhere with great care, not, perhaps, so much in reference to the wild turmoil itself as to the manner in which innocent chips and straws are whirled round on its surface, or engulfed in its depths. He has shown how much and how

far persons of a certain constitution may by automatic action of muscle, nerve and brain be the dupes of their own imperfect organization, and the puppets of stronger and more vulgar minds. We could have wished that the peculiarities of extra-automatic people could have been investigated by themselves, and in a strictly scientific manner, and without according the undeserved honour of inquiry to those who travesty the wholesome laws of nature, convert a fit into a heavenly trance, an hysterical girl into a prophetess, an automatic movement into a communication with the spirits of the dead. We scarcely think that the one grain of truth was worth sifting from all those bushels of chaff and rubbish. Perhaps no one who was not thought to be open to conviction in these matters would have been permitted to look behind the foot lights, and if Carpenter had spoken sharply and bluntly, as Faraday did of the table-turners, his opportunities for investigation might have been greatly curtailed. As it is Dr. Carpenter has done rare service in this cause now and aforetime.

Dr. Carpenter states that the number of persons capable of being biologized is "from one in twelve to one in twenty; so that in a company of fifty or sixty persons, there are pretty sure to be two or three who will prove good biological subjects." We apprehend that a very wide margin must be left for the effects of deception and credulity even in the simple process of biologizing. We never saw a lunatic biologized, and we have seen a hundred experimented upon by professors of the art. In as many school girls probably a large proportion would be found susceptible, especially if they had been ill supplied with good food and fresh air, and had imbibed an undue amount of sensational poetry and fiction. One lady Dr. Carpenter has himself biologized into so deep a sleep that she could not be awakened by any ordinary means, even by being roughly shaken. "Her slumber appeared likely to be of undefined duration; but it was instantly terminated by the operator's voice calling the lady by her name in a gentle tone." What assurance, however, can the doctor have that this young lady was not playing a trick upon him, or simply indulging a caprice? It is always wise to try the simplest explanation first, and in women the capricious is certainly more common than the biological temperament, even if the author's statistics of the latter be correct. The warning against these experiments, which are too much the pastime of the idle, the hysterical, and the foolish, is of weighty import.

"The undue repetition of such experiments, however, and especially their repetition on the same individuals, are to be strongly deprecated; for the state of mind thus induced is essentially a morbid one, and the reiterated suspension of that volitional power over the direction of the thoughts, which is the highest attribute of the human mind, can scarcely do otherwise than tend to its permanent impairment" (p. 565).

The question of "Unconscious Cerebration" or "Latent Mental Modification," which is peculiarly Dr. Carpenter's own, is too important and unsettled to be fully discussed within the brief limits of a review. Dr. Carpenter thinks that his views had been anticipated by Sir William Hamilton, but the passage he quotes from that philosopher scarcely appears to us to detract from the author's priority of thought. Sir W. Hamilton's "mental activities and passivities of which we are unconscious, but which manifest their existence by effects of which we are conscious," are plainly indicated by the sentence which follows as referring to the unknown and the incognizable. We are conscious of the knowable, unconscious of the unknowable.

"There are many things which we neither know nor can know in themselves, but which manifest their existence indirectly through the medium of their effects. This is the case with the mental modifications in question. They are not in themselves revealed to consciousness, but as certain feats of consciousness; suppose them to exist, and to exert an influence on the mental processes, we are thus constrained to admit as modifications of mind what are not phenomena of consciousness" (p. 518).

Hamilton proceeds to explain that we can only be conscious of a determinate state or mental condition which supposes a transition from some other state; "But as the modification must be present before we have a consciousness of it, we can have no consciousness of its rise or awakening, for this is also the rise or awakening of consciousness."

If all this means anything it must mean that we are only conscious of mental states which exist at the time, and that we are unconscious of preceding mental states, or of the transition from preceding to existing states. How Dr. Carpenter can hatch unconscious cerebration out of that egg we cannot imagine.

Neither can we see how John S. Mill can be thought "explicitly to accept the doctrine of unconscious cerebration," seeing that he "considers unconscious mental modification as a contradiction in terms; attributing the phenomena to

unrecognised changes in the substance of the brain which he regards as the constant physical attendants of mental modifications."

No doubt there are many brain changes of which we are not conscious, but mental change, without consciousness, is, according to this very high authority, a contradiction in terms. But all the facts adduced by Dr. Carpenter to prove unconscious cerebration are distinctly mental changes such as, according to Mill, it is a contradiction in terms to designate as unconscious.

These mental changes may be classed almost entirely under two heads—1st, recollection without effort; and, 2ndly, apparent increase in the results of thought without further thought.

It may be taken as one of the commonest mental experiences of most men, that when a fact, and especially a name which they endeavour to remember, and which escapes from the determinate effort of recollection, it often suddenly jumps, as it were, into the recollection without effort, after they have been thinking of other matters. Dr. Carpenter explains this by the theory that the part of the brain engaged in storing up and reproducing past impressions is not the same part of the brain which is engaged in the consciousness of those impressions, or in the consciousness of their reproduction; and that after the seat of consciousness has given up its futile labour, the seat of memory unconsciously continues its activity, and when it has unconsciously brought its work to a successful issue it communicates the result to the seat of consciousness; then, and not before, the fact is consciously remembered. Upon this we must remark that the conscious effort to command the memory, without guide or clue, is generally and singularly unsuccessful in result. The only way to succeed in remembering some forgotten thing is to seek some clue, some thread of ideal association which may lead us to it. The direct bald effort fails for the simple reason that the attention is fixed upon the effort, and not upon the idea sought. Withdraw the effort, and the attention fixes upon the idea. The memory of the thing was in the brain, must have been there all the time, or it could never again have been remembered. Memory is a latent power, and always unconscious. Recollection is the mental activity which opens the cells of memory to the consciousness and recollection, therefore must always be conscious. That any portion of brain work is done unconsciously

in the act of recollection, is a theory to which we cannot subscribe without far stronger evidence than any which we have yet seen adduced.

The second class of facts adduced to prove that mental work can be performed by the brain without consciousness, are almost as common among men who are in the habit of employing their minds in intricate and difficult subjects. A man thinks on some matter which needs to be considered from various points of mental view, which appears to have bearings on many other subjects which seem to need elucidation from many quarters ; he turns all the mental material over and over again until the whole business seems a jumble, and in confusion and weariness of thought, he puts it aside. He sleeps upon it, and the next day that which overnight was a daub of confused colours, is seen as a bright and clear mental picture. The instances adduced by Dr. Carpenter of this mental phenomenon are varied and exceedingly interesting, but we suppose that no reader of these pages will have any difficulty in referring such experience to himself. But, affirming the facts, will he also agree with the explanation that this power, of seeing old thoughts in a new light, is due to work which the brain has been doing in the meantime, while he was unconscious of its activities. The brain has been doing work no doubt. It has been replenishing its forces by rest and nutrition. But has it been performing acts of memory and ratiocination? Has it been sifting away the chaff of irrelevant material, and retaining the grain of reason, and the possessor of the brain all the while unconscious of these mental activities? If so, Dr. Carpenter's theory of unconscious cerebration is a new, original, and most important light on the nature of mental activities. But if the power of looking at things anew, of considering arguments afresh, giving irrelevances the chance of being forgotten, and essentials the opportunity of being duly weighed, if this results in the better and clearer understanding of the subject of thought from the simple fact that the mere effort of thought is made under great advantage over the old, then the theory would seem to be unnecessary and superfluous. We think of fishing to-morrow, and pull out fly books and materials, and are entangled in a medley of feathers, silks, and lines. In the morning we put up our rod, and with a cast of flies suited to the weather we seek the stream. Was the mind all night, being unconscious, arranging that which bothered us so in the evening? So with the materials of

ratiocination; we begin by collecting from all sides that which may be needful, and the mind becomes perplexed and confused, until the time for decisive thought or action comes, and then we take those things only which are needful.

Dr. Carpenter's theory of unconscious cerebration is in accordance with what we may call his regional physiology of the brain. He places the higher psychical functions in the convolutions of the cerebrum, but the cerebral ganglia or the sensorium is the seat of our consciousness of these functions, as it is that of external sensations, but of that class of "*truly* subjective sensations," which comes to the sensorium, "the result of changes in that cortical layer of the cerebrum which we have reason to regard as the seat of the higher psychical operations." When the psychical operations of the cerebrum have been reflected downwards upon the sensorium they become subjective sensations, and give rise to the formation of an *idea*.

"It is the *sensorium*, not the cerebrum, with which the will is in most direct relation; and in order that this doctrine (which lies at the basis of the whole inquiry as to the relation of the Will to motives, and the mode in which it determines our character and actions) may be rightly apprehended, it is necessary here to consider the following physiological question:—Whether cerebral changes are in themselves attended with consciousness, or whether we only become conscious of cerebral changes as states of ideation, emotion, &c., through the instrumentality of the sensorium—that is of that aggregate of sense-ganglia, through the instrumentality of which we become conscious of external sense-impressions, and thus feel sensations?" (p. 109).

"In this point of view the sensorium is the one centre of consciousness for visual impressions on the eye (and by analogy in the other organs of sense), and for ideational or emotional modifications on the cerebrum—that is in one case for sensations, when we become conscious of sense impressions; and on the other for ideas and emotions, when our consciousness has been affected by cerebral changes. According to this view, we no more think or feel with our cerebrum than we see with our eyes; but the ego becomes conscious through the same instrumentality of the retinal changes, which are translated (as it were) by the sensorium into visual sensations, and of the cerebral changes, which it translates into ideas and emotions" (p. 111).

It would be impossible to put in clearer language this new doctrine, the psychical and the physiological counterparts of which are thus made to fit so accurately and consistently. The first question, however, which ought to have been entertained is the basement of physiological fact upon

which all this imposing edifice has been erected. We are not aware of any, over and above the experiments of Flourens, who showed that birds performed consensual movements, apparently indicating the retention of consciousness, after the cerebrum had been removed down to the optic thalami and the corpora striata. But in complement to these interesting experiments, we have the fact that frogs perform consensual movements which may be taken to *indicate* the retention of consciousness after the spinal cord itself has been divided. The movements of Flourens' pigeons no more prove the retention of consciousness than those of a decapitated frog, which "when acetic acid be applied over the upper and inner part of the thigh, the foot of the same side will wipe it away; but if that foot be cut off, after some ineffectual efforts, and a short period of inaction, the same movement will be made by the foot of the opposite side" (p. 68).

If, under the light of these facts, it be difficult to maintain that the seat of consciousness is not diffused through the central parts of the cerebrum *and* of the spinal cord, the pathological fact that in the human being the optic thalamus or the corpus striatum may be fundamentally changed in consistence and structure by disease, without loss of consciousness, is a barrier against the acceptance of Dr. Carpenter's theory, which, as yet, we are unable to make our way over, under, or through; and at present our conclusion is that unconscious cerebration is an hypothesis all in the air, and unsupported by any foundation of physiological fact.

Whether the activities of the cerebral convolutions are unattended with consciousness until they have been reflected upon the sensorium, is a question which perhaps physiological experiment, or even more likely pathological research, will answer before long. In the meanwhile we are exceedingly incredulous, and retain our faith in the old opinion that consciousness resides in the cerebral convolutions, and that we are conscious of all mental changes which take place therein.

It is somewhat remarkable that, notwithstanding the large part which consciousness, or want of consciousness, plays in Dr. Carpenter's system, he has nowhere attempted to show wherein it consists or of what it is composed. Certainly it is in great part composed of the perception of sensations coming from without, and so far may well be located in the *sensorium commune*. The *cænæsthesis* also, the common feeling of the organism, enters largely into its composition, and may have its place of recognition in the same cerebral centre. But evi-

dence has yet to be sought that the consciousness of ideas, whether they be intellectual or emotional, has its seat elsewhere than in that part of the brain where these ideas are formed, namely, in the cortical layer of the cerebral convolutions. Dr. Carpenter appears to adopt the metaphysical opinion that consciousness is the perception of the *ego*, and as such is one, simple and indivisible, but the physiological view of consciousness will be that it is highly complex, and compounded variously at every varying moment of perceptions, ideas, and emotions, some of which obtrude more or less upon the attention, some of which are more or less faint and unrecognized, but which nevertheless exist, and can be found, if the attention be directed to them. The consciousness always is, and must be highly complex. Even when an intense sensation seems to convert the whole body into one great pain, one sense of torture, there is that sense and the idea of it, and the emotion it causes, and some appreciation of the surroundings faintly recognised; even in *melancholia attonita*, when some one frightful delusion has taken possession of the mind to such an extent that the patient seems to have sunk into the abyss of dementia, he still hears and sees, and has some apprehension of his surroundings, so that even in this case his consciousness is the compound result of very different sensibilities. Some of these are forgotten by the memory, some are lost, but none are forgotten by the mind. As a feather falls not to the earth without drawing the earth to itself, so in psychics, the most feeble and transient sensation, unnoticed and not forgotten, because never really placed in the memory, is still a factor of the mind through all its subsequent existence, and in the history of all mind for ever.

A due appreciation of the elements of consciousness from this point of view, will perhaps lead Dr. Carpenter to admit that unrecognized and unremembered parts of consciousness have still existed among its components, and that as no motion of matter can exist for a moment without leaving results in modifications of physical universe, so these unrecognized and unremembered parts of consciousness must serve in the chain of mental paternity or genealogy of all succeeding mental states.

The chapter on Insanity is excellent, barring the intrusion of the volitional theory. We are glad to observe too how fully he has adopted our own views of the *emotional* nature of insanity, and of the genesis of intellectual delusions or per-

verted emotions. These opinions, first advocated by us in the twelfth volume of the "Medico-Chirurgical Review," in 1853, appear since that time to have been generally adopted by mental physicians, and it is now gratifying to obtain the concurrence of a great physiologist and philosopher.

The modes of disturbed emotion which tend to the production of insanity are not, according to our observations, the various forms of angry passion which is commonly called quick or bad temper, and the author has probably accepted in too serious a sense the remark made to him by Dr. Conolly on this point.

"The writer well remembers when going with Dr. Conolly through one of the wards on the female side of the lunatic asylum at Hanwell, Dr. C. remarked to him, 'It is my belief that *two-thirds* of the women here have come to require restraint through the habitual indulgence of an originally bad temper'" (p. 663).

Conversational remarks of this kind are often made with little intention of their being taken accurately in support of scientific theories. Probably the Doctor had just then been vexed with some extraordinary display of female temper, but we think that if questioned he would have admitted that insane women as a class have scarcely worse tempers than other women, and that angry feelings do not constitute the modes of emotion which more frequently lead to the evolution of insanity. Grief and pride, and that compound of hope and fear we call anxiety, these are the modes of emotion which are the frequent groundwork of mental disease.

In conclusion, we can strongly recommend this interesting and erudite work to our readers. If we think the automatism of the mental functions which physiologists are compelled to recognise is opposed adversely to the methods of strict science, by the much-debated and certainly unestablished doctrine of Free Will, it must not be forgotten that the author, in his belief in the Freedom of the Will has on his side the support of widely-spread opinion, and that it is somewhat unfortunate that his conscientious labours to prove and establish the physiological importance of Free Will, have fallen in this instance for review into the hands of one who, with Jonathan Edwards, believes that there is no such thing. The scope of the work is far larger than the comments which our space permits us to make would lead our readers to expect. It is replete with information, and remarkable for clearness of statement and of thought. Disagreeing, as

we do, with its main purpose, we cannot avoid the expectation and the hope that it will provoke rivalry, and yet it richly deserves, and will no doubt occupy, a place in medical literature, the vacancy of which has been much felt, as a text book on Mental Physiology.

John Charles Bucknill.

Clinical Aspects of Syphilitic Nervous Affections. By THOMAS BUZZARD, M.D.

This little volume is in great part a reprint of papers which appeared in the "Lancet." The object of its author is to describe simply and concisely the clinical characters of certain nervous disorders which he believes to be of a syphilitic nature. It consists of four chapters—the first treating of the diagnosis of syphilitic nervous affections, the second dealing with the pathology and morbid anatomy of them, the third containing illustrative cases, and the fourth devoted to a consideration of prognosis and treatment.

We think that the author has fulfilled in a concise and satisfactory manner the aim which he had set before himself, and that his book will be very useful to the practitioner. There can be little doubt that the syphilitic nature of certain obscure nervous disorders is often overlooked: it is well, therefore, that their clinical characters should be presented in a clear and vivid picture by one who is qualified by practical experience to apprehend and group them. We are not sure that the effect will not be to cause syphilis to be suspected and detected in cases in which it is really innocent of harm; but even if this should happen, it will be a far less mischievous error than that of overlooking it where it really is at the bottom of the disease. In some of the cases which he has recorded Dr. Buzzard seems to have convinced himself of the syphilitic nature of the disease rather by intuition than by induction; at any rate, there is wanting in the histories of them the evidence on which the conclusion is based. Although agreeing with those who hold that in science it is not inspiration but induction which giveth understanding, we are not inclined to doubt the general accuracy of the diagnosis, more especially as the excellent results of treatment by means of iodide of potassium appear to have been such as to justify it. Dr. Buzzard speaks very highly of the virtues of this drug:—

There is something quite remarkable in the influence of the iodide of potassium in cases of this class. The drug seems to act almost as a food to the patient. It is not only that he finds under its employment that the special nervous symptoms for which it is prescribed are beneficially influenced, but he describes a condition of *bien être* as accompanying its use which makes him unwilling to give it up. I know of nothing in all therapeutics more extraordinary than the rapid effects of the iodide in improving the condition of these patients, except it may be perhaps the influence of lemon juice in scurvy.

The book may be heartily recommended as containing the latest results of scientific inquiry, and imparting a great deal of practical information in a small compass. It is written in a clear, simple, and unpretending style, and cannot fail to be very useful to the practitioner who has not the time or the opportunity to make himself acquainted with the various essays on the subject which are to be found in different journals, English and foreign.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *Public Asylum Reports for 1873.*

In noticing these reports we shall, as in former years, extract from each such matters as seem to be of more than local interest, whether in a medical, administrative, or more general point of view. We have received the reports of most of the English County Asylums, together with some others. A fashion which prevails among some Scotch asylums of terminating the official year on 1st February and other unusual dates, and which we should be glad to see amended, renders the reports of these asylums late in the dates of their appearance.

There are still great differences amongst these reports, not only in the amount of information given as to the state of the several asylums, and the results of the year's operations, and even in the subjects on which information is given; but there is also much variety in the form in which the information is given, so as often to render any comparison in particular directions quite illusory.

Amongst those reports already received, which may be taken as fairly representing the whole, there are hardly two that are comparable throughout, though the Middlesex and the Lancashire reports form two small groups which are almost so.

Nevertheless, on each particular item a large majority are in agreement. Thus, nearly all give the Report of the Commissioners in Lunacy.

A majority give the tables of the Medico-Psychological Association, yet eight only give five or six of them, four omit the tenth table, and five others alter their numbering; upwards of twenty giving them as intended by the Association. In the financial portion the form in which the accounts are presented are still more various, though, as a rule, all essential information is given; in a few, however, the accounts given are very meagre.

According to the Commissioners' reports the condition and management of these asylums is more or less satisfactory, and their recommendations, as a rule, refer to matters of small detail. The only exceptions of any moment that we notice are in the case of the Colney Hatch Asylum, in reference to which the Visiting Commissioners say:—

While according every praise to the zeal and industry of the superintendence, exercised under difficulties of an exceptional character, our visit on this occasion confirms us in a conviction we have long entertained that an asylum of this magnitude, and occupied by the description of patients now here, is quite beyond satisfactory management.

The following extracts from the *Cambridge Asylum 16th Annual Report*, the greater part of a somewhat voluminous pamphlet is taken up by details of the various negotiations which have taken place between the committee, the county of Cambridge, the borough of Cambridge, and the Isle of Ely, the Commissioners in Lunacy, the Secretary of State, together with architect, engineers, and chemists, called in for advice, will give some idea of the dead lock to which things had come, and the resulting condition of the asylum. The Visiting Commissioners say:—

The patients, however, are not properly cared for in many important points; the day rooms, intended and sufficient only for 90 men, are crowded by 130, and 154 women are daily collected where but 108 should be. The baths and closets are also quite inadequate in number for the patients, as many as 60 using one very small bath room with a single bath, and one closet with a single seat in several wards; and dressing, after ablutions, in the adjoining corridors. As far back as March, 1872, the Committee practically admitted, by submission of plans for the enlargement of the asylum, the absolute necessity of such enlargement, and yet nothing has been done by them in that direction, nor, so far as we can learn, is anything now contemplated. The serious defects just referred to affect health and decency, and have been previously brought by members of our Board to the notice of the visitors; but again we think it right to do so.

The Committee say:—

Your Committee regret they cannot report much progress in carrying out the several important works which during the past three years have engaged their serious attention, viz., the provision of more cubic space in the day rooms of the asylum, and the removal and renewal of the asylum boilers.

Your Committee have endeavoured, by the foregoing detailed account, to show that they have done all they could to carry out the several works required by the Commissioners in Lunacy, and regret to state that they have failed to make more progress therein, in consequence of the necessity of their having to obtain the unanimous consent of the three bodies, of County, Isle, and Borough, besides the sanction of the Commissioners in Lunacy in London, under the provisions of the Lunacy Act, 1853.

The Secretary of State now requests that immediate steps may be taken to carry out the necessary works.

We read the following remarks of the Commissioners with satisfaction, though with some pain that there should be necessity for them:—

Although Dr. Bacon obtains a substitute from Cambridge, when he is himself away upon a holiday, he must at times necessarily be absent for some hours, and then the asylum is left without any medical assistance; hitherto fortunately there has been no serious casualty to patients on these occasions, but we cannot too strongly repeat our opinion that an asylum of this magnitude ought never even for the shortest period to be so left. Even if an Assistant Medical Officer be not considered by the visitors to be necessary in order to relieve Dr. Bacon of part of his present labours, he is required for emergency or accident in Dr. Bacon's temporary absence.

The working of the asylum during the year seems to have been much more satisfactory than might have been expected, and has, no doubt, been so at the cost of much additional exertion and anxiety on the part of Dr. Bacon.

CORNWALL.—*54th Annual Report.*—The portion we had marked for quotation from this report refers to the greatly diminished use of seclusion. We will revert to this in connection with references to the same subject in other reports.

DEVON.—*28th Annual Report.*—A further extension for female patients, a sanatorium, and a chapel are about to be built. The Committee report:—

The 28 acres of land which were purchased in October last will prove a most valuable addition to the asylum property they have now in hand, and the whole farm, together, about 101 acres, is worked under the management of the bailiff, entirely by the patients, thus affording them healthy recreation, and, at the same time, utilizing their labour for the benefit of the County.

On referring to the farm account we see no wages charged but those of bailiff, gardener, and farm boy. Ward attendants probably also work on the farm with the patients, otherwise a larger proportion than usual must be at work alone on parole. We do not find anything in this report to show whether this be so, or what may be the connection this has with the cottage accommodation which, if we remember rightly, is a feature of this asylum. We gather from the various reports that in most asylums a much freer use is made than formerly of the power of first sending out on trial patients whom it is proposed to discharge. To give an allowance also whilst on trial seems to be the rule at Devon.

Dr. Saunders says—

A large proportion of the patients discharged have been sent out on trial with an allowance of seven shillings a week for the first month they are absent from the asylum. The statute requires (79 sec., 16 and 17 Vict., cap. 97) that a medical certificate of the patient's state of mind should be sent at the expiration of this probationary period, and a formal request is in each case sent to the officers of the union to which the patient is chargeable, that a report may be forwarded to the visitors. Except in the case of one union, the request is

seldom attended to. It is scarcely necessary to point out the importance of a medical report as to the patient's mental condition—(1) Whether he has sufficiently recovered to obtain his final discharge, or (2) whether it is desirable to renew his leave on trial for another month? or (3) if necessary he should be sent back to the asylum, in which case no fresh orders or medical certificates are requisite.

The following items are from Dr. Saunders' report :—

The general health of the patients has been good, except in the autumn, when diarrhœa of a severe type prevailed in the wards. There was also a single case of typhoid fever. The diet had been of the usual good quality, and there was no reason to suspect any contamination of the drinking water, but after a careful examination of the water closet system and sewers, it was found that some of the drains were defective, and sewer gas vitiated the air both within and outside the buildings.

Your Superintendent respectfully urges upon the Committee the necessity of providing a more capacious reservoir for combined service and storage purposes on the highest part of the asylum grounds, which should contain a week's or ten days' supply.

The new bath rooms have been completed, and are in daily use. The supply of hot water is ample, and the water is now changed for every patient, instead of three patients bathing in the same water as was formerly necessary.

BUCKS.—*21st Annual Report.*—A somewhat unusual case of suicide is thus noticed by Mr. Humphry :—

He had been at work in the garden with a party of patients and two attendants about five minutes before he was found dead. Having been called to lunch, he slipped round the corner of the stable, and pushing off a heavy stone which covered a small underground tank used as a receptacle for drainage from the pigsties, he precipitated himself head first, and having drawn in one leg, he was so fixed that he had to be turned before he could be extricated, and died immediately on being got out. The subject was fully reported to you, and also inquired into by the Commissioners in Lunacy, and at the inquest a verdict was given, "That deceased destroyed himself whilst in an unsound state of mind."

LEICESTER BOROUGH.—*4th Annual Report.*

The Committee feel that their thanks are due to the ladies and gentlemen who have in various ways been the means of affording Musical and other Entertainments to the patients.

We find indications in some reports, especially those of the larger Asylums, that the facts, both for the clinical history and statistical record of the cases, are taken with but little inquiry from the "statement" of the Relieving Officer. In this Asylum Dr. Finch tells us :—

Great pains have been taken to obtain precise information as to the previous history of each newly-admitted patient, with a view to ascertain the cause of insanity. Of the 118 patients admitted during the past year, it was positively ascertained that 48 had an hereditary tendency to the disease, and in 16 cases the unmistakeable exciting cause was intemperance. The cases in which the two causes were combined are placed in the hereditary class.

LEICESTER AND RUTLAND.—*25th Annual Report.*—There is in connection with this Asylum a charity, whose patients are now accommodated in a separate part of the building, and are regarded as private patients. This separation has been more fully carried out, but

we do not gather that any other difference in treatment is instituted between the two classes.

Mr. Buck places in even stronger terms than we have been used to see the disadvantage of a stiff clay as a site for an Asylum.

The Asylum has been remarkably free from epidemic disease, and the patients have enjoyed a good average standard of general health throughout the year. I have never known them so little affected by what are considered the special diseases of different seasons. A very moderate rainfall and an equable temperature may account for this, for on a stiff clay such as underlies the Asylum, dysenteric and diarrhoeal disorders can scarcely ever be said to be entirely absent in rainy seasons.

He thanks various visitors who have assisted in the associated amusements of the patients, and adds:—

But whether privately or publicly made, I cannot do otherwise than express my opinion that the patients in a large Asylum are, generally speaking, benefitted by the visits of all who come with proper credentials, and I wish such visits were more frequently made.

He expresses an intention of shortly advising the erection of a Turkish Bath.

WILTS.—23rd Annual Report.—The loss sustained by this Asylum, as well as by our specialty, and by science, in the death of Dr. Thurnam, is noted by the Committee.

Your committee have unfortunately to deplore the lamentably sudden death of Dr. Thurnam, who has filled the office of Medical Superintendent ever since the establishment of the Asylum, now more than twenty-two years ago; and your Committee are unwilling to present this, their Annual Report, without recording their appreciation of the medical skill and administrative abilities which the deceased gentleman brought to bear upon his work in connection with the Asylum. Your Committee, with a view of securing a good selection of eligible candidates for the office, rendered vacant by Dr. Thurnam's death, gave due publicity by advertisement to the terms of the appointment. The publicity thus given led to applications being received from no less than twenty-seven gentlemen, as candidates for the office of Medical Superintendent.

Dr. Thurnam has been succeeded by Dr. J. Wilkie Burman, from whose report the following will be read with a melancholy pleasure:—

Dr. Thurnam, who needs no eulogium from me, but as to whose devotion to the welfare of the patients and well-being of the Asylum I may state that I am, day by day, receiving continued testimony from the officers, servants, and inmates of the Asylum, amongst whom the late Medical Superintendent seems to have been held in great and universal esteem.

STIRLING.—4th Annual Report.—We note here an endeavour is made to keep down the number of Asylum inmates, by a free discharge of unrecovered patients. Sir James Coxe notes that:—

The decrease in the number of patients arises principally from the persistent efforts of the Medical Superintendent, in requiring the removal of those who, although still insane, and thus in a sense qualified to be inmates of an asylum, yet do not stand in need of any special appliances for their proper care and treatment. Of the patients discharged, 29 had recovered, a proportion equivalent

to 50 per cent. on the admissions. Of the non-recovered cases, seven were removed to other establishments, 22 were placed in private dwellings, and one escaped. Thus more than two-fifths of the patients discharged were returned in a state of mental deficiency to the general population, and it is satisfactory that a demand for re-admission has been experienced in only a very small proportion of these cases. Indeed, demands for re-admission occur far more frequently in the cases of patients who have been discharged recovered, but who have suffered a relapse; and this fact shows how unfounded are the fears still very generally entertained against the discharge of unrecovered patients, lest they should prove dangerous to themselves or the public.

The following from Dr. Skae's report bears on the same subject :—

Although the number of annual admissions in this Asylum is larger in proportion to its accommodation than that of any other Asylum whose annual reports I see, this is the first occasion since its opening in which there has been an increase of the number resident at the end of the year. This increase in the number of inmates has been owing to two things: the greater number of admissions, and the smaller number of removals. For an Asylum originally meant to accommodate 200 patients, 121 admissions in a year is really a very large proportion indeed, and unless there were something peculiarly favourable in the nature of the cases, it could hardly be expected that, at least a temporary increase, could be avoided.

The Visiting Commissioner also notes improvements in the dietary, which mainly consist in *ad libitum* supplies of bread and porridge, in a large addition of the vegetables in the broth, and in increased quantities of milk. We have here stated more plainly than in any other report the one point in a dietary without which it cannot be satisfactory, viz., that some article—bread, potatoes, porridge, no matter what, so long as it is a good staple article—should be issued *ad libitum*. Whatever the quantity nominally in the diet table, it should in one such article exceed the consumption. No patient can then be half fed; he may not have as much meat, say, or butter as he would like, but he has a sufficiency of, say, bread. Such an arrangement does not meet the case of the sick, but for a majority of asylum patients it is the essential point in a dietary. We believe in most asylums the dietary does fulfil this requirement. Where it does not, we may be sure phthisis and diseases of deficient alimentation will be more frequent. Dr. Skae's experience of the effect of the change of dietary fully bears out this opinion.

Both the mortality and the general health of the establishment make this year contrast favourably with the preceding one. Last year there were eight deaths entirely due to consumption, and two partly so. This year there have been only two deaths due to consumption. It would not be correct to ascribe this highly satisfactory result to any one cause. Very likely it is owing to a considerable extent to the alterations which were made in accordance with the suggestions made by the Visiting Commissioners last year, more especially to the greatly increased use of excellent milk and vegetables supplied by the farm and garden, and to the greater amount of open air exercise taken by the women. But I think it must also be largely due to the better physical condition of the patients on admission as compared with the preceding year.

The District Lunacy Board state—

For some time past the Commissioners in their reports have strongly recommended that a greenhouse should be erected to afford a supply of flowers for the

decoration of the asylum, and latterly they had become so urgent upon the subject that the Board found it impossible longer to withstand their solicitations, and a small greenhouse has been accordingly erected at a cost of £85 2s. 5d.

NORWICH.—Dr. Hills expresses a hope that ere long it will be left to the discretion of the Superintendent to make a *post-mortem* examination in every case in which he deems it desirable. We will only add a hope that that desire may extend to every case, and that other and less professional duties may not, as we fear is often the case at present, render the making of a *post-mortem* examination an additional burden too heavy to be borne.

Our female wards were for several months so crowded that in July it was found necessary to send fifteen of the chronic cases to Northampton Asylum whilst our new ward was being built for their reception ; the building operations were commenced in July, and have progressed almost uninterruptedly, owing to the very favourable state of the weather. Whilst on this subject, I may remark that our female exceed our male patients by 100—an excess only equalled by the Devon Asylum—and far above that normal preponderance of the female element common to asylums.

The proportion of males to females appears to be as two to three ; at Devon it is as three to five.

In the matter of therapeutics, I may mention our trial of the *veratrum viride* (an antiphlogistic much employed in America) in cases of acute and chronic mania ; the results proved it to be of great efficacy, especially in the latter disease, in lowering the pulse and temperature, without producing any untoward or unpleasant symptoms. Faradization was employed in some cases of dementia with favourable results.*

COLNEY HATCH.—*23rd Annual Report.*—The Committee report an uneventful year. The following is perhaps worth notice :—

In consequence of the improvements introduced in the laundry machinery, the Committee have been enabled to dispense with the services of ten paid laundry women. In addition to this, the Committee have every reason to believe that the linen will be more effectually washed, while the expenditure in the laundry department, from the adoption of new machinery and the decrease of staff, must in future years be largely reduced.

The matron, Miss Builder, resigns after twenty years' service on a pension of £200 per annum.

Australian meat seems now to be a regular item of diet in at least a majority of asylums. The following from the Commissioner's report is the only instance we have noted of any serious complaint being made against it :—

The complaints as to the diet were indeed numerous in both divisions, especially in reference to the Australian meat, which is now extensively used, and to the fish dinner, which for some short time has been given once in the week. Although the fish is simply boiled, and without any kind of sauce, it does not appear in itself to be disliked by the patients ; but the complaints bore upon the insufficiency of its cleaning, and to the inadequate quantity.

The Chaplain's report is, though rather lengthy, a pleasing docu-

* A Clinical Note on this subject by Dr. Hills will appear in our next Number.

ment ; it is throughout a record of work done, and is free from empty platitudes.

The medical tables are confined to the ten of the Association, which are accurately given ; we also find the financial tables in a sufficiently full and comparable form. It is, perhaps, characteristic that these take precedence of the medical reports and tables.

HANWELL.—*29th Annual Report*.—This report is in many respects identical with the last. The following remarks from the report of the Committee are undoubtedly true :—

Parochial Authorities are often blamed for not sending patients to asylums in an earlier stage of the attack, but the cause rests mainly with the families of the patients, and much allowance should be made for this natural reluctance. Admission to a lunatic asylum is frequently the break up of a household, and the pauperising of a family ; and in many cases the early stages of mental disorder are not detected as such, and no curative measures are sought for until its effects are too evident to be mistaken, but too confirmed to be remedied.

This only shows, however, that there is all the greater necessity for a proper vigilance on the part of the parochial authorities. Whilst the first duty of an asylum is unquestionably the treatment of curable cases with a view to recovery, it is notorious that all sorts of impediments are allowed to delay the admission of these, whilst large numbers of incurables are crowded in to overflowing.

The following, from Dr. Williams' report at Sussex, refers to this matter :—

Reviewing the admissions, and noting the fact that by far the greater majority were in a chronic condition as to their mental disease, it cannot but strike an impartial observer as a subject for much regret that when persons become acutely insane they are not at once sent to the asylum. In some of the Unions of this county the insane are often taken to the workhouses prior to being taken to the asylum. Thereby much valuable time is lost. All authorities on lunacy are agreed, and their belief is borne out by ample statistics, that if acute insanity is to be cured it must be placed under treatment at once. Every hour is of the utmost importance. The Medical Superintendent ventures urgently to press this question on the attention of Boards of Guardians as being worthy of their earnest consideration, both from a humanitarian and a financially economical point of view.

It should not, however, be forgotten, as we fear it sometimes is, that a certain proportion of recent cases are incurable even in an asylum ; that out of the asylum a certain proportion of recent cases recover ; and that the incurability of long standing cases is due not only to their having, by improper treatment, been rendered incurable, but by the curable cases having been weeded out of them in consequence of their having recovered. And we think an analysis of the chronic cases in any County Asylum would show a larger number that were deemed curable on admission than of those of whom it could reasonably have been said that had they been sent earlier they would have recovered, and that there had been no other difficulty as to their being sent in time than an unwillingness of the proper authorities to send them.

We are, however, so impressed with the evil inflicted in a considerable number of cases by delay, by retaining them under the influence that produced the insanity, by bad treatment and ill-usage, that we seldom feel inclined to be critical, however strongly we find the matter put.

In view of the unfavourable character of the patients, it cannot be expected that the cures should be otherwise than very limited, amounting to 6·34 per cent. on the male side, and 6·50 per cent. on the female side.

If any proof were wanting of the unsoundness of basing on the admissions any calculation of the percentage of recoveries, it would be found in the fact that they have just before told us that the percentage of curable cases in the asylum is only 5 among the males, and 6 among the females, less than the actual recoveries for the year, showing, as every one knows, that the recoveries come from the current admissions—from the fluctuating, not the permanent population. At the same time we must grant that probably no absolute conclusion can be drawn as to the therapeutic effectiveness and sanitary state of an asylum from any mere statement of the percentage of recoveries, however calculated, whether on admissions or otherwise. The different percentages given by different asylums often point rather to the different character of the admissions than to a difference in the result of treatment. The differences resulting from more successful treatment are no doubt an important element, and, therefore appreciable in the great difference of the rate of recovery; though in all cases this is partly due to a greater or less proportion of curable cases among the admissions.

A beginning is being made to use the vast mass of material here existing for clinical instruction. We should like to see a substantial addition to the medical staff, both here and at Colney Hatch, with a view to clinical research and instruction. The present staff can barely suffice for ordinary routine duties. These asylums ought, with all the advantages incident to their proximity to the metropolis, to lead the van in all matters connected, not simply with the treatment of insanity, but with the physiology and pathology of the nervous system. We desire not to be misunderstood, we mean no reproach to the present medical staff—our surprise rather is that they do not break down under their present responsibilities; we have no wish to impose any more on them. But we do think that the staff ought to be increased to undertake the further duties we have indicated.

The deputy matron has resigned on a superannuation allowance of two-thirds of her salary, after 21 years' service. From the following remarks we think the Committee appear to view the question of superannuation in a manner at once just and business-like:—

The Court have been called upon during the past year to grant several pensions to persons retiring from the asylum service, and the Committee are aware that a heavy expenditure is now annually incurred in the payment of these grants, they think it right here to state that for some time to come the application for

retiring allowances can be but little diminished ; when, however, it is borne in mind that this Institution has been in existence for a period of upwards of 42 years, and that there are still many persons in the service who joined shortly after it was opened, the Committee are impressed with the belief that this reward for long and faithful service, and provision for age and infirmity, will continue to be deemed not only well deserved, but will operate as an inducement to attract deserving persons to the service.

The following extract is from the Report of the Commissioners in Lunacy :—

We were present at dinner time in several wards. The food appeared sufficient in quantity, but the beef was somewhat hard, and the plates were cold ; the occasional fish dinners appear to be appreciated. We recommend that in each ward should be scales for weighing the meat sent up to them : this is the practice in other asylums, and enables the complaint of any patient on the subject of quantity of food to be readily inquired into.

It is not quite clear whether the Commissioners mean each individual ration to be weighed, though we are aware that this has been, and perhaps still is, done in some asylums. We hope this is not now a frequent practice ; if meat is to be served and eaten whilst still warm and palatable, it must be rapidly carved, and in rapid carving, portions must vary, more or less, in weight, but the smaller portion received one day will be made up by a larger received another. We believe the asylums are very few where the dietary is so very nicely reduced to the lowest point that this give-and-take from one day to another would be injurious.

We have selected various statements concerning seclusion from different reports in order to present them together, but the following statement by Dr. Rayner, comes more appropriately here :—

Various causes have combined to render it possible thus to limit the use of seclusion. One of these is the practice of carefully investigating the origin of every case of excitement, which can only arise from two causes—an access of disease, or from some fault in the surroundings ; the latter can usually be rectified by a little care, and the former by appropriate medical treatment. A second cause is the increased tranquillity of the patients from the extension of employment. A third cause, I believe, is the very limited use during the past year of drugs given simply to allay excitement. I am of opinion that nothing can be more injurious to the health of the brain than the continued use of drugs which act directly on it, and disturb its nutrition. The health of the one organ is best restored by improving the health of the whole body. A fourth cause, and, though last, by no means least, is the beneficial and tranquillizing effect exerted on the patients by the liberal efforts that have been made to render the surroundings of the insane in this asylum more home-like, and of more individual interest. To illustrate this, I would mention that the recreation ground in which the whole of the excited and violent male patients take exercise (formerly a bare gravelled court), during this year has been terraced, and paved with asphalt, the slopes being turfed and planted with shrubs ; in addition a large sunshade, three fives' courts, and a double skittle alley have been provided.

The improvement in the demeanour of the patients on re-occupying this court after the alterations was very marked, and attracted the comment of all who were familiar with it. This is still further corroborated by the great diminution in the destruction of clothing, furniture, &c., as reported to me by the store-keeper.

WANDSWORTH, SURREY.—*Report for 1873.*—The resignation of the Clerk and Steward has enabled the Committee to abolish the dual system of government which still exists in several asylums, the Steward having independent authority in several departments. The Medical Superintendent is now placed in full power in all departments, and already the Committee report that various advantages have accrued.

We have made during the past year, as we reported to the Court at the last Midsummer Quarter Sessions, a very important change in the staff of the asylum, by relieving Mr. Bridgland, at his own request, after 31 years' service, of the onerous duties of Steward and Clerk to the Asylum. We need hardly repeat that it was with the greatest reluctance that we brought ourselves to acknowledge the necessity of any steps being taken to sever our connection with so valuable and experienced an officer, but we felt that Mr. Bridgland had fairly earned his rest, and that it was desirable to take advantage of his retirement, to substitute for the dual administration of the asylum the control of one responsible head. Up to that time, whilst the Medical Superintendent had had under his charge the patients and the attendants, the Steward had been supreme over the farm, the garden, and all the servants in as well as out of the asylum; and whilst the latter had been also responsible to the visitors for the purchase of all stores, the dispensing of them, or the greater part of them, necessarily rested with the former—arrangements which obviously tended to confusion and extravagance. As far as the short experience we have yet had enables us to judge, the change is likely to be a great improvement. The main administration having been brought under the sole charge of Dr. Biggs, he is able to exercise far greater supervision than hitherto, and to effect very many economies to which the old system was entirely antagonistic.

A building foreman was engaged, and commenced duty in February, taking the place of the bricklayer, who was superannuated on £40 a year.

A female attendant, who had been 31 years in the service, also retired with a pension of £40.

BROOKWOOD, SURREY.—*7th Annual Report.*—Dr. Brushfield reports a case of suicide, which is instructive, as showing how, under favouring opportunity, a patient who is deemed perfectly harmless to himself or others may make a most determined attempt on his life. This is the only suicide that has yet occurred at Brookwood, although 104 out of 166 admissions last year were suicidal.

A male, aged 61, admitted in March last, as a quiet, harmless, and non-suicidal patient. For some weeks he was employed in my own garden, under one of the out-door attendants, and neither directly nor indirectly had he previously evinced the slightest propensity to do himself any harm. On the evening of September 19th, the attendant neglected to take him to the ward as usual, upon which he first attempted self-destruction by stabbing himself with some blunt instrument in the fore-arm and neck, and then went down to the canal and deliberately drowned himself. Verdict, "Suicide whilst in a state of unsound mind." The matter was thoroughly investigated by the Committee of Visitors, and a report was sent to the Commissioners in Lunacy. The attendant was discharged.

Additional buildings on a large scale are being constructed.

The plans for the erection of buildings to accommodate 400 additional patients having been sanctioned by the Court of Quarter Sessions, and subsequently by the Commissioners in Lunacy, it became necessary to alter the direction of the

main road through the asylum estate, as well as the road to the north lodge, measuring altogether about the third of a mile, before the contractor for the new works took possession of them.

The new recreation hall was brought into use before the close of the year, and, as far as can be yet ascertained, appears to be well adapted for its destined purpose. Its acoustic properties are remarkably good. The furniture and fittings, all of which are of home manufacture, are being proceeded with as rapidly as possible.

The effect of the different sort of accommodation provided at Caterham and Leavesden on the state of these last five Asylums is alluded to in these reports just sufficiently to make us wish we had a more full and instructive account of it. At Brookwood, a change in the character of the cases resident is noted sufficient to make a provision of a further number of single rooms necessary.

Concerning Colney Hatch the Visiting Commissioners say :—

The difficulties incident to the successful working of this now overgrown asylum have been much increased by the removal of all the patients of a quiet and well-conducted class to the Leavesden Asylum, and the admission of others from the various licensed houses and other places, the majority of whom are violent, noisy, or of dirty habits.

The Committee at Hanwell say :—

The necessity for this addition has arisen from circumstances over which they have no control, but results from the transfer to the Metropolitan Asylums at Leavesden and Caterham, of a large number of chronic patients of comparatively tranquil habits, and who have been replaced by others of a most unfavourable description from licensed houses and workhouses, including many epileptic and excited patients, a class requiring special care and classification. It is obvious that it is not only undesirable, but dangerous, to congregate many of such patients in dormitories, and when only a few are so accommodated the quiet patients are disturbed and alarmed by those outbreaks. On the female side of the asylum, containing above 1,100, there are only 181 separate sleeping rooms ; and on the male side, containing upwards of 700 patients, only 177.

In Dr. Bigg's report we read that :—

Last year the total number treated was 1,182, and the mean resident number was 954. The reduction this year was due to the necessity for thoroughly cleaning and painting some of the large dormitories, and also in consequence of the crowded and dangerous condition of the male division, alluded to in my last report. With your sanction, I have for some time been compelled to decline the admission of violent patients, known to require single rooms at night. The regular removal of quiet, harmless, demented people, as vacancies occur in Metropolitan District Asylums, must have this result until new buildings are erected suited to patients of a worse type.

Dr. Rayner would almost lead us to suppose that at Hanwell the condition of things was such that a gaol was for some patients a better place than the asylum, simply because a sufficiency of single rooms was to be had in the former place.

About 1 in 5 of the whole number admitted were suffering from general paralysis. One of the patients suffering from this malady had been in prison for some months, yet, notwithstanding this, was in good bodily condition on his admission here. I think that one reason that his bodily health remained so good was the fact that during the whole of his imprisonment he had the advan-

tage of sleeping in a single room, thereby obtaining the quietude at night which is of such vital importance in this and many other varieties of insanity. Unfortunately, owing to the increasing number of such cases in this asylum, and the small proportion of single rooms, it is becoming impossible to insure this condition of tranquillity at night.

Dr. Richards says :—

Some few years back we were pressed for this sort of accommodation, but since then, in consequence of the Caterham and Leavesden Asylums for Imbecile Patients having been opened, and the Hampstead Hospital having been converted into an asylum for a similar class of patients, we have had removed to these institutions 138 quiet, harmless, and chronic lunatics, who used to sleep in associated dormitories. These have been replaced for the most part by patients of a more troublesome, turbulent, and violent class, who for their own welfare and for the safety of the other patients, ought to sleep in single rooms, but for the want of the requisite accommodation this cannot be done.

The Committee at Wandsworth say :—

It is lamentable to find that in spite of the greater facilities afforded for attention to recent cases by the erection of the large asylums at Caterham and Leavesden, and in spite of the largely increased number of cures undoubtedly effected thereby, the number of lunatics in the county is not only greater than ever, but the increase (238) this last year has been greater than ever known before.

It is obvious, however, that from the number of patients sent to licensed houses and still retained in workhouses that the accommodation in Middlesex and Surrey has never yet exceeded, or even by a good deal reached the demand, so that any effect in diminution of the numbers of the insane from their being properly lodged cannot yet reasonably be expected.

The increase due to increase of population, and to the increased vitality given to the insane by the modern arrangements for their care, goes on unchecked.

It appears to be very doubtful whether these district asylums can be regarded as in any way successful financially.

Dr. Brushfield says :—

The effects of removal to the Metropolitan District Asylums of a large number of quiet and harmless cases I alluded to in a former report (5th), and the year's experience tends to corroborate the opinion then expressed; it is certain that there is a relatively greater number of "bad" cases now in the asylum, and that the expense of maintaining them is increased.

The cost of maintenance at Caterham is 8s. 9½d. per week; at Colney Hatch it is 9s. 8d. We think that the difference (11d.) would hardly suffice to pay for the increased cost that is, or ought to be, incurred at the county asylum for a larger proportion of single rooms, a larger amount of medical and other attendance, extra diet, &c., due to the much greater concentration of "bad" cases.

CITY OF LONDON.—*8th Annual Report.*—We do not see in this report any reference to the district asylums. The condition of this asylum, gathered from the report, contrasts most favourably with the

Middlesex asylums. In one point only do we see reason for unfavourable comparison; that is in the cost, which we do not find given in the report, and which we may be wrong in calculating at over 14s. This is, however, due principally to the small size of the asylum, and partly also to the staff being sufficient in number, and well paid. The recovery rate is much the same as in the other Metropolitan asylums, whilst the death rate has always been markedly less, in no year having reached 9 per cent.

The high cost will probably be lowered when an addition to the accommodation is made.

We mention the differences between this asylum and the others as exemplifying, rather than as going any way to prove, the opinion that several small asylums would have been a much more desirable provision for the insane poor of London than the further large asylum that is being provided.

The health of the patients during the year has been very satisfactory, but 17 out of a mean average of 285 having died, some of them at an advanced age. The asylum during the past year has not only been full, but has on many occasions had one or two patients in excess of the number for whom proper accommodation could be afforded, and admission has, in consequence, frequently been refused to patients, thereby necessitating their being received into private asylums, at an increased expense.

The discharged amount to but 19—9 males and 10 females—of whom only 3 males and 6 females were recovered, 3 males relieved; and 3 males and 4 females not improved were removed to other asylums, having been made chargeable to parishes beyond the City. It is a matter of regret that the percentage of recoveries, only 23·68, should be so low; but this result must be attributable to the paucity of recent admissions and the unsatisfactory nature of the cases admitted, in many of which insanity had existed for a lengthened period, while in others the age of the patients precluded all hopes of recovery being effected.

The deaths have amounted to 17—9 male, 8 female, against 6 male and 7 female in the previous year, when it was remarked that the percentage upon the numbers resident was lower than it had ever been. The number of deaths this year, though in excess of that of the previous one—the percentage being 5·96 against 4·57—is still lower than the average in this and other asylums, and it is a circumstance worthy of remark that no death has now occurred for nearly four months. The cause of death in every instance has been natural decay, and no inquest has been held.

OXFORD.—*Report for 1873.*—Dr. Sankey's lamentation over the grounds of the asylum being now properly laid out, may bring some comfort to those superintendents who find a wilderness about their asylums that they almost despair of ever getting into shape.

The removal of earth, in levelling and regulating the original grounds of the asylum, has ceased, and a great want is felt of work of that simple and healthy kind, at which many patients have been constantly employed with so much benefit to themselves, since the first opening of the asylum. The Committee, however, fully recognising the advantages of such employment, hope shortly to purchase $7\frac{1}{2}$ acres of land on the south-east side of the asylum, which will require some slight alteration of level to enable all the sewage from the female side and foul laundry to be used upon it. This is the more necessary, as it is found from experience that there is such a thing as over-saturation or sickening of soil, no matter how light. And for potatoes (our chief crop), great care is taken to avoid this supersaturation.

CARMARTHEN.—*Ninth Annual Report*.—Dr. Hearder complains of patients being sent to the asylum under the charge of the police. We have no hesitation in adding 'all the weight we can to his condemnation of the practice. He says—

The custom of sending patients to an asylum under the escort of the police is open to much reprobation. Nine cases were so conveyed here during 1873. There always exists amongst the poorer class a great unwillingness to allow their afflicted friends to be taken to a lunatic asylum. The fact of having a relative thus under supervision is a reproach in the eyes of the unreasoning multitude, which must be intensified by the sufferer being so treated as a criminal ; treatment which would suffice even to create such a belief, did it not already exist. No sound argument can be urged in favour of such a practice.

The Chaplain directs his attention to the "dreary state" of his chapel. We hope the committee will enable him to give a more cheerful account of it next year.

DENBIGH.—*25th Annual Report*.—The Committee make the same complaint that Dr. Hearder does at Carmarthen.

All patients should be accompanied by the Relieving Officer of the district, instead of, as now frequently occurs, a police officer, who in any case of informality is not in a position to afford assistance. This is rendered the more necessary, as it is of great importance that the previous history of the patient should be ascertained, and the relieving officers are those best calculated to give it.

We suppose the police escort is a Welsh habit.

The Committee regret to report that Dr. Jones, Medical Superintendent, has been suffering from continued and severe indisposition. Drs. Turnour and Hughes, who were called in, recommended that he should have six months leave of absence, Dr. Hughes having undertaken to visit the Institution three days in every week, and also to attend at other times whenever required. The Committee, taking all circumstances into consideration, have acceded to the recommendation of the medical gentlemen. A full statement of the case was forwarded to the Commissioners in Lunacy.

CARLISLE.—*12th Annual Report*.

The management of the asylum by Dr. Campbell, who was appointed Medical Superintendent on the removal of Dr. Clouston to the Royal Asylum, Edinburgh, in June last, continues to afford every satisfaction to the Committee. They are glad also to be able to report favourably of the efficiency of the new Assistant Medical Superintendent, and the various other officers and servants connected with the asylum.

The Visiting Commissioners inform us that no difficulty is found here in making *post-mortem* examinations in all cases, as a rule.

In these, as indeed in all cases of deaths in this asylum, *post mortem* examinations were made. The friends of the deceased patient are always communicated with, and informed of the intention to make this examination, but in no instance has any objection been raised.

The means of personal washing are provided in most of the associated dormitories, but we have ascertained that these are not used, the patients going to the lavatories for this purpose. These are, however, by themselves insufficient, especially in some of the men's wards, and we trust that the washstands in the bed-

rooms will in future also be used, at least by the patients of the more orderly class, who in this, as in other asylums, will doubtless appreciate the comfort of such an arrangement.

It is the constant tendency of attendants and of those patients who assist them, and take a pride in the neatness of the rooms and dormitories, to endeavour to keep things in show condition, and for this purpose to prevent their being applied to their ordinary and proper uses. We should like to know in how many asylums a clean and neat piece of carpet beside each bed is kept so by being carefully folded up and put away at night, the very time when by theory it is wanted. We hope there are few wherein such things are sanctioned by the medical officers, but in the matter of the patients washing in lavatories rather than in the dormitories, where they have slept through the night, where the air is close, and where no time should be lost in opening windows and turning up the mattresses, there is a good deal to be said for the practice. If no pretence of their being used is made, there would seem to be no special objection to basin-stands, &c., being in the dormitories, just to give a furnished air.

The not unimportant subject, though one of detail, of under blankets is referred to in a majority of the reports of the Visiting Commissioners. We gather, that now under blankets are the rule, both on ordinary beds and on those provided with a mackintosh sheet, but that not very long ago, both, and especially the latter, were exceptional.

The beds and bedding were clean; the latter is of a good and substantial character, and the supply of it is plentiful. Under blankets are provided throughout, and in accordance with our recommendation, a small blanket will also in future be placed above the mackintosh sheet, where the habits of the patient necessitates such a protection for the bed.

WORCESTER.—*21st Annual Report*.—The project entertained by some of the magistrates of a reduction in the dietary has very deservedly broken down. The Visiting Commissioners say—

In answer to our inquiry in regard to dietary, we find that it is as good as it was when the asylum was visited in March last, and that Canadian pork is now on trial once a week. According to our experience there can be no question that any reduction of dietary would be attended with very mischievous consequences. A large proportion of the persons admitted here arrive in a state of great physical prostration; their bodily health has to be built up, as it were, and then to ameliorate their mental condition a good diet must be maintained.

The bathing arrangements are defective and the water-closets very few in number. The Committee proposed additional accommodation to remedy these defects; the Court of Quarter Sessions, however, requested to know among other things why earth closets could not be adopted throughout. To this we are indebted for a long report from Dr. Sherlock, in which, besides matter in reference to their bathing arrangements, we have a very full and valuable account of the experience of earth-closets in Lunatic Asylums, as to which, information was collected from many sources. We think this *resumé* by Dr. Sherlock so valuable that we append it in full.

Twenty-seven asylums were using water-closets, but in several of them earth-closets had been tried and found not to answer, as at Northampton, Somerset, and Surrey, and the Superintendents reported unfavourably of them in comparison with water-closets.

In twenty-five asylums the Superintendents reported that earth-closets were in use. In two asylums - Broadmoor and Shrewsbury—they were said to be in use in all situations; ten confined their use to out-of-door situations, seven to ground floor wards only, two to ground and first floor wards, and four used earth-commodes of various construction in special departments. Thirteen of the Superintendents where earth-closets are in use reported unfavourably of them, while the Superintendents of five asylums where they are in use stated that they answer well.

The Superintendents of nearly all the asylums where earth-closets have been in use state that they require more care and attention than water-closets, and the majority speak of them as emitting most offensive odours if the least neglect be permitted. In several asylums where they have been in use they have been replaced by water-closets. In the last report of the Isle of Man Asylum, dated July, 1873, the following paragraph occurs:—"Water-closets have been substituted for earth-closets throughout the asylum. The desirability and advantage of this change no words of mine can express."

The Superintendent of Broadmoor Asylum reports that the experiment with earth-closets has there "been a very complete one. The result has been to prove that they are a shocking nuisance indoors, and to be avoided wherever the water supply and sewerage are reasonably good." In the pamphlet published and circulated by Moule's Patent Earth Closet Company testimonials from these two last named asylums are given, speaking favourably of their suitability by the Clerk of the Works; but subsequent experience has proved them unsuitable, and the Superintendents of Berks, Caterham, Colney Hatch, Leavesden, and Rainhill report equally unfavourably of them, and in Kent they have been replaced by water-closets in all the wards, and their use confined to out-of-door situations. The weight of evidence appears to your Superintendent to prove clearly that they are less effectual than water-closets, that they require much greater attention and care, that they are frequently very offensive and pollute the atmosphere, and that their use should be confined to airing-courts. In constructing a new asylum some of the objections to their use can be partially removed by placing earth-closets in situations where they can be charged with dry earth, and the soil removed from outside of the building; but where the closets are placed, as in this asylum, in exposed situations, much inconvenience and nuisance would arise from the filling and emptying process.

If earth-closets were fixed on the first floor wards, considerable inconvenience would result from having daily to carry earth for their supply through the wards occupied by the patients, and this would be much more inconvenient and undesirable in female wards, where men would daily have to enter at an early hour. Where earth-closets are in use, it is absolutely essential in an asylum to provide some paid labour for the daily attention and supervision of providing them with dry earth, and removing the contents of the tanks. It is also necessary to have some provision by means of which dry earth may be procurable at all seasons for the supply of the closets, and this must entail considerable expense in erecting a building for stowage of earth during the summer, or of constantly having some artificial means of drying earth during the winter. The product of the use of water-closets is equally applicable to land in the form of sewage, and at present this is constantly carried out, and entails no charge for labour, and appears to be equally valuable as a fertilising agent.

Since the last visit of the Committee several members of your Board, accompanied by the County Surveyor and your Superintendent, visited the Shrewsbury Asylum, where earth-closets were known to be in use both in ground floor and first floor wards. Without exception the whole of these closets were more or less offensive, and some of them painfully so, although it had been attempted to overcome the nuisance by the copious use of chloride of lime, a strong odour of which could be readily perceived everywhere. In the first floor wards, where

shoots were employed to conduct the soil to tanks or vaults on the ground underneath, this was especially the case, and much inconvenience was stated to frequently arise from the earth and soil in its passage downwards adhering to the inside of the shoot. In several of the earth-closets examined the deposit of dried ashes upon the pan was accompanied with the rising of so much dust as must necessarily soil the dress of any person using the closet; probably, however, this would be less likely to occur were earth or clay in use. In reply to our inquiries it was reported that in the morning when the tanks or vaults were being emptied from the outside a most offensive odour was found to enter and penetrate into the building, owing to a back draught from the outside through the pipes. It was said to be perceptible for some considerable time afterwards. In a sanitary point of view your Superintendent is therefore forced to report upon earth-closets very unfavourably, not only in respect of those as seen at Shrewsbury, but in many other asylums of the country where they have been seen and inspected by him. The Commissioners in Lunacy, also, in reply to your inquiries, stated that they were less serviceable for asylum use than water-closets, and were found not to answer so well. So far as the examination extended, the members of your Board concluded that they were equally liable to get out of order as water-closets, and several were found without earth or ashes, some acting imperfectly, and a few not at all.

We have the *post-mortem* appearance in 11 cases recorded; *post-mortem* examinations were made in all but one case of death. We are sure these records would be more useful with a short heading to each, giving the nature of case and of the appearances found. They would thus be much more available to any one collecting the histories of particular forms of disease.

Dr. Sherlock points out the difficulty of securing a sufficiently confirmed convalescence, in consequence of the desire of patients' friends to remove them as soon as any approach to sanity appears. Patients of the rank of life from whom our admissions are derived, as also their relatives (not unfrequently backed by their Union authorities), believe that their retention in an asylum is, under such circumstances, likely to result in a renewal of their mental disease; they disregard all advice, assume that what had hitherto been observed in this respect was accidental, and would never again occur, and prefer to have their relatives at once under their care at this risk, rather than defer the period of their detention under the discipline of an asylum for a few more weeks or months, and in many of such cases the result happens which is recorded in this report.

In connection with this suicidal type of mental disease another rather unusual complication, at least in this district, remains to be mentioned. Many patients, both of the male and female sex, have been under our care, who for months persistently employed themselves in causing solutions of continuity of the soft textures; this propensity existed not only during the night, but was carried out during the day in the most open manner in spite of all remonstrances, entreaties, and arrangements. Restraint was not employed to circumvent this perversion, but relays of persons were told off to guard against the continuance of the practice, and with only partial success.

We do not remember to have previously heard of so curious an epidemic; any cases at all agreeing with Dr. Sherlock's rather vague description have only come under our notice at rare intervals.

Dr. Sherlock also calls attention to the benefits to the health of

the patients which are more or less clearly traceable to a diminution of overcrowding.

It will be gratifying to your Committee to hear that the general health of the patients in the Asylum, and also those employed in your service, has been very good, and far above the average of most former years. Probably, to some extent, this is owing to the greatly extended cubic space which the residents now occupy, consequent on additions recently made to your asylum. There has been no epidemic disease, and little seen of diarrhœa or dysentery; and what has occurred has been readily overcome by treatment, and appeared to be owing to changes of temperature of an exceptional character, or errors in dietary. There have been only a very few cases of febrile disorder, and a marked exemption from erysipelatos affections, carbuncles, boils, and gangrenous patches of the extremities. Phthisis, which a few years ago showed a tendency to develop itself in an unusual number of our residents, has been reduced to a very material extent, and most of the cases now coming under treatment have been received with evident signs of its existence, and in only a very few has it developed itself during their residence in your asylum.

(To be continued.)

2. *English Retrospect.*

By JAMES MACLAREN, L.R.C.S.E., Assistant Physician Royal Edinburgh Asylum for the Insane.

The following are extracts from Dr. Laycock's paper "On certain organic disorders and defects of memory," published in the "Edinburgh Medical Journal," for April, 1874:—

"There are two physiological processes included under the word memory, which are fundamentally distinct."

"The word memory is commonly used to denote both retention and reproduction; consequently, these two fundamental processes are confounded with each other when the word is so used. Then, again, it is as often used to denote the reproductive process alone, because want of this is the only sign of defect in the retentive process; hence, the phrase loss of memory generally means loss of recollection. Again, there may be reproduction as a lower mental process, but no memory in the sense of knowing that what is reproduced denotes what occurred in past time. Aristotle notes this kind of memory, and says that lower animals possess it. By reminiscence, he meant the higher faculty of knowing the past, and therefore implying the knowledge of time. This is more especially intellectual memory—the memory of events in orderly suggestion. It would be well, therefore, to restrict the use of the word reminiscence to this higher intellectual process of reproduction, as distinguished from that simpler form of memory possessed by lower animals, in which there is reproduction without the concurrence of abstract ideas as to time. Aristotle makes the interesting observation that the memory, as thus defined, is the more powerful when the intelligence is the dullest, but reminiscence more vigorous when the intellect is the brightest."

"What happens is a cerebral vital change, which is the double result of mind or vital energy, acting conjointly with certain molecular energies, under certain physical conditions of the organic basis. The whole series of processes are

vital, and have their analogies in other vital processes. Simply the mechanism is this—the process of retention takes place in relation, firstly, to some antecedent retention; and, secondly, to some external impressions; the one includes recall, as “association of ideas;” the other recall in relation to external impressions, as recollection or remembrance. Thus, when a man ties a knot on his handkerchief, in connection with a certain intention he has fixed in his mind, so that he may be reminded of his intent by the touch of the knot, he receives virtually, when so reminded, a physical impression on or through the sense of touch, which being transmitted onwards to the *locus in quo* in the brain, acts on the organic seat of the retention, and so the organic change coincident with remembrance is excited, and he does what he intended. This process is, in fact, one of those cerebral states which, according to my view, are dependent on the reflex action of the brain. The first stage is an example of cerebral sensory reflex action, or association of ideas; the second, of reflex cerebral motor action. In thought without volitional activity, the reflex action is not directly induced by external impressions, but indirectly, and by successional waves of change in the sensory vesicular neurine.”

“Looking, then, at the physiology and pathology of organic memory from this trophic point of view, we can distinctly generalize two different, yet closely related, processes; the one kind including that organic nutrition of the brain on which depend the well-known mental processes termed remembrance, recollection, recall, reminiscence and association of ideas, and which are determined according to the laws of sensory reflex action of the brain; the other kind, without a distinct name, but which consists in the production of those states of molecular nutrition of the brain upon which the former depend. As this organic basis of memory is the result of mental, vital, and physical energies operating conjointly, I have elsewhere designated the process by which it is formed *synesis*, or a coming together, and so tried to indicate that conjunction.”

“We can now generalize further. The organic cerebral or encephalic process I term *synesis*, which corresponds to memory, considered as the process which subserves to the retention, conservation, and accumulation of knowledge and experience, being a manifestation of a general law of life; the correlative organic process which corresponds to that element of memory termed recollection, reproduction, and reminiscence, must be also a manifestation of some equally general vital law correlative with *synesis*.

“Now, these two laws are, in fact, none other than those termed evolution and reversion. To understand this, it is necessary to remember that the brains go on evolving long after the body has ceased to evolve, and that every addition to a man's experience and knowledge is practically a higher evolution of brains, or of some special portion of them. And this higher evolution, due to ever recurring *synesis* in individuals, families, and races, may, and in fact does, become hereditary.

“So that a return in memory at any moment to that which was evolved *synetically*, a day, a week, a year, or a lifetime before, is, practically, a reversion to an antecedent but ancestral *synesis* as evolutions.

“Whether or not there be with the organic or ancestral reversions thus established, the knowledge that they belong to the past, and, as such, are true reminiscences, is another question, which I will not now discuss. As to these phenomena, whatever they may be—whether merely reversionary or reminiscence also—the process of recall is one of cerebral reflex action; they are re-excited by external impressions.

“It follows from all this, that the organic conditions upon which memory depends have a *locus in quo*, and that there is a portion of the brains in which the processes of *synesis*, or evolution and recall, or reversion occur.

“All organic memories are therefore local. This is, in fact, the principle which underlies the phrenological doctrine of ‘organs.’ Gall's attention was first directed to the ‘organ of language’ by observing that persons with good memories had prominent eyes. But, then, these persons have not only a *copia verborum*, but a volubility sometime amounting to a logorrhœa in expressing

what they do know, although that may not be much. Hence there is a motor, as well as a sensory or sentient element in the processes to which the 'organ' is subservient. In phrenology, memory is the result of activity of each of the organs or faculties; thus by the organ of 'Time' a man remembers music, as well as language and words.

"The differences in power of retention of 'impressions on the memory' manifested by individuals is recognised by phrenology as a quality of brain, but the cause is not known. It is not difficult, however, to determine three conditions as necessary to the proper functional activity of the organic memory, viz.:—1. Those of nutrient energy of the *locus in quo*, whereby synesis and recall are duly perfected. 2. Those upon which thought and ideation or the association of ideas depend, which are sensory; and, 3. Those which subserve to the expression of thought or feeling by words or acts, and which are motor. The pathology of memory must therefore discriminate as to these, both as to causes and seat.

"That the seat of the motor and sensory are distinct, may, I think, be learnt from an observation, which, however, each reader must make upon himself. Having selected some song of which both the air and the words have been stored up in his brains, the reader should first try to sing both the air and the words mentally—that is to say, without any motor activity whatever, and he will find that he can do this, unless it be that perchance his breathing keeps the time of the air involuntarily. Having done this sufficiently often, let him next end the process by energising into actual singing. In this way he cannot fail to discover that he has been engaged in two distinct cerebral processes, the one restricted to consciousness, thought, or mind, the other combining motor activity with the mental states. Now, let it be supposed that the former or sensorial brain state is induced physically or morbidly, and independently of volition and thought, then, in this case, the hallucination of hearing the words or the air, or both words and air, would occur; or, if that cerebral sensorial condition which corresponds to the volitional production of the air and words mentally were induced, he would have the hallucination that he sang them, although perfectly silent. This is, in fact, what occurs in dreaming of acts done. Again, suppose further, that the motor portion of the synesis—that which corresponds to actual vocalization—he also morbidly excited, then he would repeat the words or sing the song automatically or involuntarily.

"Neither class is of unfrequent occurrence during sleep and dreaming, in delirium, and in insanity.

"One day I had an interesting illustration of the dreaming class at the Royal Infirmary. A patient at visit complained that he was ridiculed by the nurse and the other patients. They pretended that he had been singing a Scotch song (which he named, a comic song of domestic life) in the night, but which it was impossible he could have done, as he neither knew the words of the song, nor could he sing the air. Upon inquiry I found that it was indeed the fact that he had so sung, and loudly. This patient had no special head-symptoms, but he was hypochondriacal, and had a spinal neuralgia, and the singing might have been due to reflex action, originating in the spinal cord.

"To have this result, the patient must either have previously acquired the corresponding organic conditions by synesis, or else had derived them from his parents. The former is by far the more probable, although the latter is not perhaps absolutely impossible."

"What name should be given to the organic condition, the result of synesis, upon which memory in all its forms depends?

"The material basis has in fact evolutionary properties as manifestly as the primordial cell of the seeds and ova of plants and animals. I have, therefore, designated them sub-strata, those which belong to states of consciousness being *ideagenic*, and those subservient to volition and muscular action *kinetic*.

"The evolutionary properties of these sub-strata are best indicated by the phrase *ideagenic*, inasmuch as new ideas, the result of new acquisitions of knowledge, tend to evolve and develop as certainly as a seed or an egg, so that they are in no wise merely material."

Dr. Laycock illustrates his theories by notes of three interesting cases.

A lecture by Dr. Laycock on the "Clinical observation and practical estimate of Morbid Temperature," is published in the numbers of the "Medical Times" and "Gazette" for March 21st and 28th.

The following are two extracts from it:—

"Now the feeling of being hot or cold belongs quite as much to medical psychology as the imagination. Very often the feeling by no means corresponds to the real condition, but is an illusion leading to delusion. Is a pseudoesthesia. It is a neurosis in short."

"A usefully practical method of considering these thermal neuroses is to assume that there is a special set of nerves and nerve-centres for regulating temperature. Although, however, I only 'assume,' I think the theory is capable of proof. According to this view there are afferent or sensory, and efferent or motor nerves, and heat is produced as molecular motion, instead of visible and mechanical motion. And since the only painful sensations that can be induced thermally are painful feelings of heat and coldness, these are the neuralgiæ of the thermal nerves."

Pursuing his labours regarding idiocy, Dr. Ireland publishes two articles in the "Edinburgh Medical Journal" for January and February, 1874, on the subject, especially in its physical aspects, and still further elaborates and defines the classification, based on the pathology of the different forms, which he propounded in this Journal in 1872.

Many general causes are assigned for the production of idiocy, such as the existence of the scrofulous diathesis in the parents, unsatisfactory social conditions such as exist in the State of New York, where idiocy is said to be increasing, or fright to the mother during pregnancy. Besides these general causes, whose vagueness is not favourable to scientific inquiry, there are more determinate existing causes. The child becomes idiotic either through lack of development or nutrition, or through disease or injury befalling the brain before or after birth.

Dr. Ireland has classified idiocy under 10 heads.

I. Hydrocephalic Idiocy.—While the largest number of children affected with water in the head die, some recover completely, and a few neither die nor recover, but become idiots. As a rule they are easily recognised by the size of their heads, though sometimes they are not larger than usual, and, on the other hand, occasionally men with heads hydrocephalic both in size and shape are possessed of ordinary intelligence. "Hydrocephalic idiots are frequently of very feeble constitution, and of a tubercular or scrofulous diathesis," nevertheless, if in tolerable health, they are more educable than some other classes of idiots, and generally improve under training. They are, as a rule, gentle in their disposition and somewhat awkward in their motions.

II. *Eclampsic Idiocy*.—The most general, as well as one of the earliest exciting causes of eclampsia, is the cutting of the teeth. "The child is thrown into fits, often long continued, and returning with short intermissions, placing its life in the utmost danger. Most of those who survive escape without injury, but some become permanently idiotic." In these the power of muscular motion, as well as the tactile sensibility, is generally well preserved, and special sense does not appear to be injured, but the intelligence is in a great degree destroyed, and the child remains, comparatively speaking, uneducable.

III. *Epileptic Idiocy*.—This term is applied by Dr. Ireland to those cases "where the epilepsy seems to be the cause of the mental obtuseness; for it ought to be kept in mind that congenital idiots are now and then subject to epileptic fits, which need not necessarily have a marked effect upon the intelligence, and in any case can only be regarded as a complication." The probability of a complete cure of idiocy is greater in the epileptic idiot than in any other of the classes, save that of idiocy of deprivation. Dr. Ireland gives two interesting illustrations of this fact. One the case of a girl, an account of whom will be found in the German Retrospect of this Journal for July, 1873; and the other, mentioned by Schröder van der Kolk, that of a boy, who was nearly idiotic from frequently recurring attacks of epilepsy, who recovered after incisions were made in the scalp and issues kept up.

Of eighteen patients of this class admitted into the Larbert Institution seven did not improve; one is not recorded in the case-book; four improved a little, and six improved considerably. "In three of these cases especially the progress was very satisfactory. The pupils increased in intelligence, and the fits diminished so notably in number that I consider a complete cure not improbable."

"In the matter of treatment bromide of potassium seems to have a less favourable effect upon the inveterate cases of epilepsy which come into an institution for idiots or into an asylum for lunatics than it has in out-door practice—where improvement follows treatment I am disposed to attribute it as much to diet as to medicine."

IV. *Paralytic Idiocy*.—"Cerebral apoplexy is not common with children, but it is clear that paralysis, associated with idiocy, must have a centric origin. I have seen about a dozen such cases. They seem to improve mentally rather than physically." Dr. Ireland quotes Schröder van der Kolk to show that in some cases there is atrophy of one side of the brain, accompanied by paralysis of the other side of the body. Impairment of mental function does not necessarily accompany this state. He also points out that "it not unfrequently happens that idiots cannot pronounce particular words or letters, or can pronounce them only in particular combinations. They often substitute one letter for another." One difficulty in regarding these as cases of deficient pronunciation appears to me that most

of the muscles used in speech are the same as those used in chewing and swallowing the food; and if we assume paralysis in the one function, how do we account for it not taking place in the other? We know that in labio-glosso-pharyngeal paralysis, which has generally been found to be associated with disease of the pons or of the corpora olivaria, swallowing is impaired along with that of speaking. This consideration appears to me not without weight, but it ought to be borne in mind that the articulation of words demands a much finer adjustment of the muscles than in moving the lips or swallowing, and that a loss of power over the muscles generally commences with difficulty or hesitation of the speech before any other motions are affected."

V. *Inflammatory Idiocy*.—The examples of this form which Dr. Ireland has met with were of different grades of intelligence. "It is evident that the injury from inflammation must depend in a great measure upon its extent or situation, which we have no direct way of measuring during life."

VI. *Traumatic Idiocy*.—"Owing to the softness of the bones of the skull in the new-born infant, as well as the looseness of the sutures, displacements and other injuries are not uncommon during parturition. As the head of the male infant is a little larger than that of the female, he is thus more liable to suffer injuries at birth. This may serve to explain why male children are more subject to idiocy, deafness, and diseases of the nervous system than female children." In most of the cases of this form which Dr. Ireland has met with the patient was simple-minded or imbecile rather than belonging to the lower grades of idiocy.

VII. *Microcephalic Idiocy*.—This is the rarest of all the forms, but owing to the speculations of Darwin has had special attention directed to it. With regard to the size of head which necessarily implies impaired mental function Dr. Ireland assumes that "below seventeen inches in circumference the manifestations of intellectual power would be feeble. But heads of this small scale are rare even amongst idiots, for idiocy is generally the result of disease, not of smallness of the brain." "In the microcephales the impressions of the senses are lively. They are fond of moving about, but have little power of continuous attention. Their restless motions recall those of a butterfly. It would appear they are late in learning to walk, but in general they have the free use of their limbs, which Gratiolet accounts for by the comparatively large development of the cerebellum. If the brain be healthy the prognosis is better than that of many cases where the brain, though of normal size, is the seat of chronic disease."

VIII. *Congenital Idiocy*.—The predisposing causes assigned for this form are numerous, but their operation is vaguely understood. Heredity often exists, there being insanity, epilepsy, or some other nervous disease in the family; sometimes the tendency to it is intensified by a

consanguineous marriage. "A very common accompaniment of congenital is the keel or saddle-shaped palate." "Congenital idiots are seldom well made, often of the scrofulous diathesis; sometimes, however, they are strong and good-looking, with well-formed heads, good teeth, and no deformities whatever. They present every variety of mental power or feebleness, and are not less educable than other classes."

IX. *Cretinism*.—The specific cause of this form is only known through its effects on the human body. "It seems to be more common on rocks of magnesian limestone, but is also known to be rife in the valleys where the primary or schistose rocks are the main or only formations. It is not hereditary in the constitution of the parent." "The most characteristic traits which occur in Cretins are the stupid monotonous facial expression. The nose depressed at the root and broad at the wings, the remarkable distance between the eyes occupied by a hollow from which the root of the nose seems to issue, the eyes dull and heavy, the broad zygomatic arch, the wide mouth, the broad lips, and the thick tongue. The teeth are generally bad, and soon come to decay; sometimes first teeth are not renewed. Cretins rarely attain the usual height; many are dwarfs, no higher than three feet. The limbs are often disproportioned, the walk awkward—what is called the 'Barengang' or bear gait, in the German parts of Switzerland. The neck is generally short, and from one third to two thirds of Cretins are said to have goitre." Although Guggenbuhl has claimed to have made a number of complete cures, Dr. Ireland was informed by the teachers of several training schools visited by him in Switzerland that Cretins do not seem to improve under training faster than idiots of other classes.

X. *Idiocy by Deprivation*.—"This condition, if it be not idiocy, simulates it so closely that it is needful to say a few words about it." "A being deprived of sight and hearing, the two senses most useful in perception, is, even when in possession of a potential intellect of good capacity, in reality an idiot as far as his relations with the outer world go." "Idiocy by deprivation is like a seed which does not sprout, because it is kept away from sunlight and moisture, while incurable idiocy is like a seed in which the germinal faculty has been destroyed; and the higher grades of idiocy resemble seeds in which the germinal capacity is much impaired, and the growth enfeebled, so that they require unusual stimulus."

In concluding his valuable paper Dr. Ireland indicates that in reducing all cases of idiocy to ten classes he does not expect the arrangement to be final, but anticipates that the advance of pathology will lead to changes in the nosology of the disease.

At the Annual Meeting of the British Medical Association in London, in August, 1873, Dr. Yellowlees read before the Psychological Section a paper on "Insanity and Intemperance," which has since been printed.

At the outset he draws attention to an interesting fact already noted in his asylum report for 1872, and quoted in this journal for October, 1873, namely, that in the district from which his asylum receives its patients, and the prosperity of which mainly depends on coal and iron, the prevalence of insanity amongst the male population is diminished to half its usual extent, whilst amongst the females it remains at the usual average during the existence of "strikes." This he considers due mainly to two causes:—"There is no money to spend in drink, and there is no time to think of anything but the strike." The latter cause is a potent one, as the prospects and progress of the strike excite absorbing and universal interest among the class it affects, "but the enforced abstinence from drinking and debauchery is beyond doubt the chief cause of the decreased insanity, and this is strongly confirmed by the fact that the diminution is observed only among the men, a large proportion of whom are habitually dissipated."

"Intemperance has a three-fold relation to insanity; it may be a cause, an early symptom, or a result. These are often associated and often confounded. Each deserves a separate notice."

The forms of insanity produced by intemperance are (1) delirium tremens, (2) transient acute mania, (3) the insanity of intemperance of Dr. Skae's classification, which may be either acute or chronic. The former characterized by suspicion, jealousy, and hallucinations, under the influence of which the patient is liable to commit acts of violence. This acute form is quickly recovered from when stimulants are withdrawn, especially if the patient be under middle age, and the attack occurs early in the career of indulgence. The disease may, however, become chronic, exhibiting the same symptoms in a milder form. These cases are hopeless, and frequently die of phthisis. (4) There is the insanity which occurs in persons who had previously been much addicted to drinking, but who had become and had been for years abstemious. The weakened brain is easily upset by any moral cause, and a permanent melancholia often results. (5) There is chronic alcoholism, and (6) general paralysis. In addition to the above direct effects, intemperance in numberless cases 'produces insanity indirectly by establishing and transmitting a proclivity to nervous disorder, and by awakening or developing such proclivity where it already exists.'

It may sometimes be only one of the *early symptoms* of insanity, and an indication that the patient is losing control over himself, and is easily led away by opportunity and temptation. In this way it is frequently one of the first noted of the moral changes that take place at the beginning of general paralysis. Lastly, intemperance may be the *result* of insanity. This is shown in dipsomania, which, "while sometimes apparently due to the vice alone, is habitually associated with some form of inherited neurosis; and this association is so constant, that the intemperance must be regarded, at least ultimately, as the result rather than the cause of the insanity."

There are three forms of dipsomania. (1) The acute, where the patient, formerly temperate, suddenly, on some loss, shock, or disappointment, takes to excessive drinking. (2) The periodic or paroxysmal form, in which a person, ordinarily of irreproachable character, is seized with an uncontrollable craving for stimulants, under the strain of over-work, or consequent on a casual indulgence. (3) There is the continuous or constant form, where the disease is associated with other vices, and with an active form of moral insanity.

As regards treatment, Dr. Yellowlees points out the necessity of "the absolute withdrawal of alcohol, except in the very rare cases where physical prostration forbids it, and the seclusion of the patient from all temptation and opportunity to indulge his habits." The chance of ultimate recovery is seldom hopeful.

PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

A quarterly meeting of the Medico-Psychological Association was held on the evening of Wednesday, the 29th April, at 52, Berners Street; Dr. Harrington Tuke, President, occupied the chair. The following members and visitors were present:—Dr. Harrington Tuke, President; Dr. H. Maudsley, Dr. J. Sabben, Dr. G. H. Savage, Dr. F. J. Wright, Dr. W. C. Daniel, Dr. F. H. Ward, Dr. W. J. Mickle, Dr. H. Rayner, Dr. W. Orange, Dr. D. Nicolson, Dr. Boyd, and Dr. W. Rhys Williams.

The PRESIDENT having taken the chair, after the usual formal business the minutes of the last quarterly meeting were read.

The PRESIDENT said he could not accede to the correctness of the report of the minutes of the last meeting, which on the whole he did not consider satisfactory.

Dr. SABBen proposed, and Dr. RAYNER seconded, that the minutes should be confirmed, subject to the opinion expressed by the President.

This was carried.

The PRESIDENT intimated that it was usual to devote the first half hour to discussion.

Dr. SAVAGE apologised for bringing before the meeting two cases of no extraordinary interest, and of which he had only with him the shortest notes.

CASE I.—Ellen R—, æt. 74. Admitted into Bethlem in 1839. Married, four children. Cause of insanity hyperlactation (16 months); suffering on admission from mania, with suspicion. Temperate, timid, solitary, talking to herself, idle, and dirty.

1851. Has settled into a quiet style of life of her own. Answers when spoken to.

1854.—The most useful patient in Bethlem. She used to refrain from work on Fridays, but has given up that whim now, and works steadily at any work given to her. Still calls herself Queen of Ireland. She is clean. Talks to herself. No change till

1872 (*August*), when one morning she was found hemiplegic (on right side) and speechless.

February 14th, 1874.—Since last note has lain in bed constantly, right arm and leg being flexed and stiff. She has double cataract. She eats well, sleeps profoundly, passes urine and motions under her; remembers the names of the doctors at the time of the fit, but none since. She has perfect sensibility of the skin, and can tell her wants. She is supposed to have had another fit about February 5th or 6th.

Her present condition is—Right shoulder moveable, muscles wasted; right elbow fully flexed, wasted, and at present painful and œdematous; wrist and forearm prone, the palm of hand turned outwards and backwards; fingers contracted and burrowing into palm of hand. Right thigh flexed so as to rest on the abdomen, the knee being close to the chin; leg flexed, so that the heel rests on buttock and the toes turned to the sole of the foot. The forearm has only become fixedly prone since February 5th; the œdema has also come on since then.

She died of exhaustion. Calvarium thick and congested. Internal centre of left frontal presented a small exostosis, to which the dura mater was attached. Several of the left temporal convolutions much wasted. Spinal cord small in size throughout. After hardening there was found at the posterior parts of right lateral column a patch of sclerosis that extended from the cervical region to the whole length of the cord. A fine reticula of connective tissue is seen, with complete absence of nerve tubes; scattered about are many rounded bodies, of varying size, that stain readily. These appear to be broken down axis cylinders.

CASE II.—Sidney H—, æt. 24, brewer's clerk, suffering from chronic mania, with ideas of persecution; violent, and at times dangerous.

1873.—Has been in a year; no mental change. He has large strumous glands about his neck, specially in right parotid region.

September.—Ulceration of strumous glands is spreading; sinuses extending over clavicle.

November.—Became paraplegic. Excess of reflex action. No loss of sensibility. During this month there was found to be total absence of chlorides from his urine, and on examination he had double pneumonia. The right lung was solid. Bed-sores rapidly developed. No gain in power over extremities. No return of chlorides.

January, 1874.—He is now a mere skeleton. Ulcers of great extent over sacrum, over both knees and ankles; the tendons about the front of the ankles exposed, and the left knee joint opened. He is able to pass his water. He is lying in flour on a water bed. Takes food freely.

February 7.—Died of exhaustion.

Post-mortem.—The chief peculiarity was that on opening the chest the pleura on both sides was adherent, that on the posterior part of the right pleura being so adherent as to necessitate leaving part of the lung attached to posterior wall. On dissection there were found two abscesses in this position (? glandular), which were filled with yellow, semi-solid pus. The abscesses passed backward to the sixth and eighth dorsal vertebræ, then entered the canal, compressing the cord for two inches, then passed to the left side among the deep muscles of the back, and passed in these from the cervical region to the sacrum, forming one huge abscess of two feet in length. The matter pressing on the cord was definitely stopped by adhesions from spreading in the canal itself. We thus see the cause of the sudden paraplegia was opening of strumous abscess into spine. The bones were slightly rough on arch of seventh vertebræ, but not necrosed. It seemed secondary to the abscess.

Dr. RAYNER had four cases in which hemiplegia is co-existent with insanity: in one case the hemiplegia has recurred three times, being followed on each occasion by an attack of mania.

Dr. BOYD said it generally resulted from an effusion of blood on the brain.

Dr. RAYNER, in the absence of other cases for the consideration of the meeting, would mention one recently under his care which was of interest as an illustration of the great importance of rest in the treatment of injuries of the head. The patient was a youth aged 17, in good health, and a member of a very healthy family. He received a kick from a pony on the left side of occiput, inflicting a severe scalp wound and rendering him insensible for half an hour. He went to work next day, and continued his employment until the fifth day, when he became very excited, and was removed to St. George's Hospital. Becoming unmanageable there after three weeks he was transferred to the Workhouse, whence he was removed five weeks later to Hanwell. On admission he was in a state of imbecility, having at times attacks of excitement, in which he was violent, and destructive, and mischievous. He was kept at rest in bed, and steadily improved both in mental and bodily health. At the end of a month he seemed so far recovered that he was allowed to get up. The attacks of excitement returned in a day or two. He was again sent to bed; after five or six weeks' rest he was allowed to rise, and has steadily convalesced from that time. "I believe," said Dr. Rayner, "that if he had been kept at rest for a few days immediately after the infliction

of the injury (instead of returning to his work) the whole of his subsequent illness would have been avoided. I am of opinion that all blows on the head of sufficient severity to produce insensibility should be treated by a prolonged period of absolute rest, and that in those cases of insanity in which such injuries appear to have been the cause, the result would have been obviated by the adoption of this mode of treatment in the onset."

The PRESIDENT remarked that he distinctly recollected Dr. Bucknill and himself pressing the same views as Dr. Rayner's upon the attention of the faculty in Paris.

The SECRETARY (Dr. Williams) reported that he had received an interesting communication from Dr. Burman, who was unfortunately not able to be present, but as he (Dr. Williams) had an urgent professional engagement demanding his presence elsewhere he apologised for leaving, and Dr. Savage kindly consented to read it to the meeting.

The PRESIDENT spoke in high terms of Dr. Burman's paper, and proposed that it should be inserted in the Journal. The general scope of the paper was clear; it really was an amplification of what Dr. Maudsley had already advanced. All would agree in the spirit of Dr. Burman's paper, but, nevertheless, he was desirous of promoting discussion thereon. He referred to a case which had engaged his particular attention. A captain in the army was confined in Newgate, having been found guilty of forging a woman's name. The only evidence of insanity offered at the trial was that of his wife and servant, and that not of a character to satisfy the Judge who tried the case. On examining him he found irregularity of pupils, tingling of the hands, and also ascertained there had been symptoms of general paralysis three months before. The Judge held the prisoner to be sane, but, contrary to the spirit of his charge, the jury found him not guilty, on the ground of insanity. A brother of the prisoner wrote two days afterwards to say that the accused was perfectly sane at the time; yet within four months he died insane of general paralysis.

Dr. RAYNER corroborated Dr. Burman's experience, and cited cases where patients had been imprisoned who were evidently insane.

The PRESIDENT remarked how necessary it was that the physical condition as indicative of the mental state should be noted in those signing important documents.

Dr. ORANGE gave some most valuable and interesting statistical information respecting the criminal lunatics at Broadmoor. In eleven years more than 1,000 patients had been admitted, and there had been 117 deaths; 23 deaths were due to general paralysis, and of these 23 deaths, six of the patients had been acquitted on the ground of insanity, and 17 became insane after conviction. Eight of the 17 had been convicted more than once, and as a rule he found that in the confirmed convict class convictions follow each other at very short intervals. Nine of the 23 had not previously been convicted. It would afford some clue as to the condition of the mind of a patient to inquire whether the repetition of criminal acts were in accordance and reconcilable with previous pursuits. In Dr. Orange's judgment, he did not think that symptoms of paralysis alone, unless confirmed by some act of insanity, would materially affect the verdict of a jury.

Dr. NICOLSON desired to express his concurrence in the opinions stated by Dr. Orange, and cited several cases in confirmation. As a rule, he found very few cases of general paralysis in convict prisons. The medical officers were most particular in the classification of disease. Both men and women convicts were generally of a very low type.

Dr. MAUDSLEY complimented Dr. Burman upon the way he had dealt with the matters under discussion, not only at this time, but on previous occasions. He said there was no question that theft is sometimes a very early symptom of a diseased mind. This was more especially to be noted in the higher classes, where there appeared to be no motive for the crime of petty theft. He mentioned the case of a gentleman who had come under his notice, and who, among other things, had stolen towels from his hotel. With regard to the rare occurrence of general paralysis among the patients at Broadmoor, it must be borne in mind that persons who had committed thefts while labouring under general paralysis would not go to a convict prison and be sent thence to Broadmoor. They would receive short sentences, and be sent to the House of Correction, where they would serve out their sentences, if they were not transferred to an ordinary asylum. We should not expect them, therefore, to come under Dr. Orange's observation.

The PRESIDENT agreed with Dr. Maudsley; but Dr. Orange's statistics went far to prove the value and correctness of Dr. Burman's paper. The probability was

that general paralysis would have been detected by an expert in the six cases referred to at Broadmoor. He once saw a man at work, picking oakum, in a convict prison, detected paralysis, and reported the case in the proper quarters, and the man was thereupon discharged.

The PRESIDENT proposed a vote of thanks to Dr. Burman, which was carried by acclamation, and informed the members that there would not be another quarterly meeting before July.

QUARTERLY MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

A Quarterly Meeting of the Medico-Psychological Association was held in the Hall of the Faculty of Physicians and Surgeons, Glasgow, on Thursday, the 21st May, 1874.

Dr. W. T. Gairdner was voted to the chair.

The following members and visitors were present :—Drs. W. T. Gairdner, J. Batty Tuke, W. W. Ireland, Alex. Robertson, P. Maury Deas, Thomas Anderson, Strehill Wright, T. Aitken, Fred. W. A. Skae, J. Fraser, James Maclaren, and Ashe. Visitors : Drs. Scott Orr, Hugh Thomson, Joseph Coats, Charteris, and Professor Alex. Dickson.

Dr. GAIRDNER, on taking the chair, said—I need scarcely say that the profession in Glasgow is extremely glad to have the opportunity of meeting with this Association. The meetings have been hitherto, and I have no doubt will continue to be, of mutual profit to the physicians and surgeons of Glasgow, and to the members of the Medico-Psychological Association. I shall now call upon Dr. Robertson to open the business with an explanation of his case.

Dr. ROBERTSON then showed a patient labouring under Partial Paralysis, and read the notes of the case, which he thought was of syphilitic origin. The patient was also examined with the ophthalmoscope. Dr. Robertson, in apologising for bringing forward a paper upon a subject of that kind, said that the example was set him last year by their worthy Chairman, who submitted a most interesting case of disordered muscular power—one, namely, of Athetosis. He thought that the consideration of such subjects was beneficial to the Association.

Dr. BATTY TUKE remarked that it seemed to him no apology was needed from Dr. Robertson for having introduced such a case to the notice of the meeting. In doing so he conferred a benefit upon the Association, and relieved it from the opprobrium of close specialism. The case corresponded with one of syphilitic insanity which he (Dr. Tuke) read at the last meeting of this Association in Edinburgh. It was the case of a man who had contracted syphilis, passing through the primary, secondary, and tertiary stages, and who became gradually paralysed on the right side. The man had, in addition, symptoms of progressive muscular atrophy and mixed aphasia. The history of the case was fully detailed at that meeting, and had been published in the Jan. No. of the Journal. Since then he had died, and the results of the *post-mortem* confirmed the opinion expressed at that time. Dr. Tuke had brought specimens prepared from the brain. It was impossible to go into the full details of the *post-mortem*. These would be recounted in the July number of the Journal. But with regard to the microscopic specimens, he (Dr. Tuke) was desirous of pointing out the peculiar condition of the vessels. In the sections on the table it would be observed that the vessels were surrounded by extensive tracts of a laminated deposit, and that in certain instances their calibre was modified; in others that complete occlusion had occurred. This was particularly noticeable in the immediate neighbourhood of softened tracts which existed in the left extra ventricular nucleus, and in the right occipital lobe. This lesion was more or less diffused over the vessels of the encephalon, but was best marked in the neighbourhood of degenerations. This obliterative thickening was most interesting, when viewed by the light of the observations of Oedmannson and Fränkel on the condition of the arteries of the villi of the syphilitic placenta. He (Dr. Tuke) hoped soon to lay the whole case before the Association, collating it with the observations of others.

Dr. IRELAND was sure that they all felt very much obliged to Dr. Robertson for bringing so very interesting a case before them, as it introduced a subject which, within the last year or two, was recognised to be of considerable importance. It was what the Germans called brain syphilis.

Dr. SKAE thought that the subject was entirely within the scope of their Association, and now that the case had been read to them they should lay claim to it. He hoped that the report of the inevitable *post-mortem* would appear in their own Journal.

The CHAIRMAN was very glad to hear the tone of the remarks of Dr. Tuke and Dr. Skae, because it was one of the special advantages of the Associations having meetings in Edinburgh and Glasgow that they had the benefit of the experience of Dr. Robertson and Dr. Wright, who were particularly well placed to introduce subjects of that kind. These gentlemen had a large field of insanity, and also a large field of general disease, especially among the incurably stricken and helpless. They were thus well placed for comparative and contrasted observations as regards the pathology of insanity and of general disease. He suggested that if the members of the Association could afford the necessary time, they should visit the Town's Hospital or the Barnhill Poor House and see the cases which Dr. Robertson and Dr. Wright were able to present. He never yet visited the Town's Hospital without getting a vast amount of instruction.

Dr. ROBERTSON and Dr. WRIGHT said that they would be glad to show any cases of that kind, either now or when the members happened to be in Glasgow.

Dr. GAIRDNER ventured to improve upon that suggestion by making another, namely, to arrange that the Association should meet here at a given hour and adjourn to visit special cases. In this way there would be no danger of their assembling either in Edinburgh or Glasgow with little business to be transacted.

NECROPHILISM.

Dr. ANDERSON read a paper by Dr. W. A. F. Browne on Necrophilism. (This will appear in an early number.)

The CHAIRMAN said that the members would be delighted to find that their old friend and fellow member, Dr. Browne, was still so far interested in their proceedings as not only to give them general sympathy, but favoured them with papers so interesting and so full of suggestions. The only observations he would offer in the way of criticism was with respect to the title. He did not quite understand from the billet what the subject of the paper was going to be, as the title "Necrophilism" appeared to have in it the suggestion of a still more repulsive phase of morbid appetite—if such it might be called—the violation of corpses. "Necrophagism" would perhaps have expressed the real subject of the paper more unequivocally. As regards the mere use of human flesh for food, as practised habitually among certain races, it was not, on the whole, a difficult instinct to understand. However repulsive to a refined and civilised human nature, it was one of many very repulsive, and apparently unnatural, instincts, and one of the least unintelligible of them. The restraining cause which must ever prevent the great majority of the human family from feeding upon the flesh of their own species was the regard for human life, and the feeling that that regard would be fatally weakened by the indulgence of such an instinct. The instinct was not of such strength that it did not yield to extraordinary circumstances; for example, when several men were in a boat at sea and threatened with starvation, the disgust at the idea of cannibalism is apt to be very easily overcome by the stronger appetite for food. Therefore it could not be a matter of surprise that among the insane, where the superior moral instincts which went to preserve the sanctity of human life were so much weakened, this apparently strong instinct of humanity should yield to the mere desire for food, and even to such morbid appetites, the eating of animals which were not generally used as food. He remembered when a boy of looking with horror at a companion who was represented to have eaten a mouse. He did not know there was any good reason why they should not eat mice, moles, &c. It was well known that of late years horses had been rather extensively eaten, and with much apparent gusto, although to many persons still, the idea of horse-flesh as a food is by no means pleasant. He believed that in 1872, during the siege of their city, the Parisians ate almost everything they could lay their hands upon, including most of the wild beasts of the *Jardin des Plantes*.

Dr. TUKE said that his experience of such cases showed him that the persons eat dead human bodies, not from the desire of such food, but from respect to their relatives. They said they did not like it, but they eat in order to acquire the good qualities of the eaten. They also eat as a token of respect for the bravery of the man they had killed. In no case did it amount to a craving or desire for such food.

Dr. ASHE said that the question was worthy of consideration whether the advance

of man in civilization depended upon the food he partook of. Man had advanced in civilization where cereals were the natural products of the country, such as in the low alluvial valleys of the Nile. Might not a change to a lower diet also cause him to fall further in the scale of civilization?

The CHAIRMAN—There is a good deal in that; but civilization has modified his food, and not quite in the right direction, as for instance Strasburg pies (laughter).

CHILDREN FOSTERED BY WILD ANIMALS.

Dr. W. W. IRELAND read a paper entitled "An Inquiry into some accounts of Children being fostered by Wild Beasts." (*See Original Article*, p. 187.)

Dr. TUKE said that this paper was ore not easily to be criticised off-hand.

Dr. WRIGHT had been much interested in the paper, because he had a case at Barnhill which was in some respects a good deal analagous to that of children nursed by wild animals, which children had turned out to be idiots. Indeed, he thought that such children had never been anything else than idiots. Well, this lad at Barnhill had been brought up by a mother whose intelligence ranked in the lowest scale. She was a costermonger, and would not allow him to be taken from her to be educated. Eventually she died, and the child was found three days after her death, sitting by the corpse. He was brought to Barnhill, and would not take food. He was also very dirty. But after having been carefully looked after, he was persuaded to take his food, and to become more cleanly in his habits. A peculiarity of his case was that he was thought to be dumb; but he was heard to make inarticulate sounds like those of a guinea-pig.

The meeting adjourned for half an hour. On assembling again, a paper on "Local Differences in the Distribution of Insanity" was read, by Dr. P. MAURY DEAS.

The CHAIRMAN—This is a paper which will admit of a great deal of discussion. I hope some of the members will speak about it more than I can pretend to do, and follow up the numerous suggestions submitted for our consideration.

Dr. ROBERTSON did not intend to enter much into this question, because it was perhaps one of the most difficult that could come before them, if they endeavoured to arrive at a conclusion regarding the causation of the local increase of insanity. There were so many points to be considered, that it would require much caution, otherwise most erroneous conclusions might be adopted. So far as he could see, Dr. Deas had not indicated the causation of the increase of the insanity in any particular part of the district with which he was connected. The communication was certainly most interesting, but it would have been more valuable if they had got at some of the facts referring to the habits of the people, to their social condition, to the emigration of the males or females from the district, and to various other points which he (Dr. Robertson) could scarcely go into just now, but which would at once occur to the members. The whole subject had been fully entered into by Dr. Clouston in regard to England in a serial paper in the "Journal of Mental Science," about a year ago. The most trustworthy documents respecting Scotland, on the question, were those contained in the annual reports of the Scottish Board of Lunacy. They entered fully into the question, and brought out very forcibly the difficulties of the problem, showing how many circumstances affecting a particular district must be taken into consideration before a reliable conclusion could be arrived at respecting the actual excess of insanity in that district.

Dr. IRELAND was very much pleased that Dr. Deas had taken up a subject which was capable of great development. But certainly it could only be carried on by minute observations in, and the collection of statistics of particular districts. If these statistics were not accurate, the most of them when collected would lead to worthless conclusions. Therefore, those who worked like Dr. Deas, in a particular field, should be encouraged by the Association. But they must wait till others should have made similar inquiries in other districts, so that all the statistics might be compared with one another. Unless this were done, no results able to stand criticism would be obtained. Dr. Deas had made out a remarkable fact, that in certain of his districts the male admissions exceeded the female by 50 per cent., and that general paralysis was common among the men, whilst it was not so among women. It had occurred to him (Dr. Ireland) that the large number of male as compared with female admissions might be due to the fact that syphilis and drunkenness were more common amongst the men than the women. However, that was part of the subject which might be worked out upon a large scale.

The CHAIRMAN said that the chief point which occurred to him had been partly anticipated by Dr. Deas. There was a risk of falling into a fallacy from the numbers being too small, and also from the speciality of one particular season biasing the numbers. It would, therefore, be necessary to go on with observations to correct these sources of fallacy. But there was another risk of fallacy in this way, though it did not appear in the paper—if a district was found to be more subject to certain forms of disease than others, one was naturally disposed to adopt the conclusion that the permanent hygienic, topographical, or so-called endemic conditions of the district were responsible for the difference. On the other hand, it might happen, that there were circumstances of an almost accidental kind, comparatively speaking, which tended to draw into one particular district from the country at large, or from the other neighbouring districts, the class of persons subject to these forms of disease. He could not illustrate this from the subject now in hand, because he had not the materials; but probably the meeting would remember when the Union Chargeability Bill was brought in a few years ago for England, in order to extend the area of chargeability for relief, one special ground adduced in favour of the Bill was, that landed proprietors were very much in the habit of eliminating the worst types of the labouring class from their estates and sending them into the nearest towns—what were called the open villages—thus causing them to walk often five or six miles to their work, and back again. They did not build houses for these labourers in the neighbourhood of their work, because they were afraid the men would ultimately be thrown upon the rates. Thus there was a sort of artificial selection. His attention had been directed to that view of the subject from the sanitary position he at one time occupied, and he had no doubt whatever that this cause operated upon a much larger scale than was commonly supposed. In fact, in all the towns, particularly the largest towns, there was, as it were, a picked population of a bad kind which was specially manufactured and kept up in these towns from the repelling influences of the country on that type of population—the country, in fact, by a sort of slow process, turning out these people, who, in the towns, generally sank into the bad population. Now it would require to be considered whether this did not apply to the subject in hand—whether there might not be in some of these Unions circumstances tending to eliminate the insane, or rather eliminate that class of the population who were subject to insanity. He thought this should be kept in view in any inferences to be drawn from these statistics.

Dr. FRED. SKAE was very much struck by the marked contrast shewn by the statistics which Dr. Deas had brought out in his interesting paper. No doubt the subject was one beset with difficulties; and an Asylum Superintendent had some to contend with which did not affect the Board of Lunacy, who had great facilities for obtaining extensive information on this subject. An asylum physician's test of the prevalence of insanity in a district was the number of insane sent to the asylum and to the lunatic wards of poor houses. But this might be far from an accurate indication of the amount of insanity in a district. Many harmless cases of insanity never came to the knowledge of the asylum physician. And not only did the nature of a case affect the method of its disposal, but judging from his own district, which contained four counties, he had no doubt that much also depended on the Inspector of Poor. One Inspector would send all his lunatics to the asylum, as the simplest plan of providing for them; another would try to board out as many as he could, or send them to poor houses; and another would avoid registering as lunatics, harmless, but obviously insane persons, so that the Deputy Commissioners might not interfere with their treatment. It was evident, therefore, that asylum physicians might be very far from having an exact knowledge of the amount of insanity in different districts. Notwithstanding these considerations, when we looked at widely separated districts, it was impossible to doubt that there were marked differences in the amount and form of brain disease in different localities. Cretinism was certainly a very local disease. General paralysis and epilepsy, too, were notoriously more common in some localities than in others. The number of general paralytics received into the Stirling District Asylum was comparatively small, and they were frequently much less troublesome and destructive than cases of the same disease in other asylums sent from large towns. Since the opening of the Stirling Asylum, five years ago, out of 656 patients admitted, only 12 had died of general paralysis, and four of these were women; whereas he saw by the second report of the East Riding Asylum, which was about the same size as the Stirling Asylum, there were 10 deaths from general paralysis in

one year. He believed that greater contrasts than that could be found. It was the same with epilepsy and idiocy, which everyone must have remarked were much commoner in English than in Scotch Asylums. Dr. Sherlock had told him that out of 669 patients in the Worcester Asylum 142 were epileptics, whereas in the Stirling Asylum there were only 20 epileptics out of 200 patients, which was about half the proportion that was found in the Worcester Asylum. It was very curious to find that those marked differences, known to exist in the type and relative amount of insanity in widely separated districts, also occurred in the different Unions of a comparatively limited area, as shown by Dr. Deas.

Dr. DEAS said that his object had been attained in bringing forward the subject, as his desire was simply to draw attention to a matter which admitted of great development. He was glad that the Chairman had pointed out the elements of fallacy in the paper, because he had felt them very much himself. Still there were so many facts all tending in the same direction that he felt justified in submitting them, in order that they might be taken for what they were worth. He had long been satisfied that there were great local differences in the types of insanity, and if one visited the different asylums of the country he would become convinced of this important fact. In his neighbourhood, for instance, there was a large amount of general paralysis and epilepsy, there being 80 epileptics out of 450 patients, and amongst the admissions last year there were nine cases of general paralysis. Last year, out of 43 deaths, 13 were directly caused by general paralysis, and seven more by epilepsy. Indeed almost 50 per cent. of the total deaths were due to epilepsy or general paralysis. His asylum was peculiarly situated in this respect. They had a large number of patients from Lancashire and Northamptonshire. But last year all the cases of death from paralysis, epilepsy, and softening of the brain occurred amongst the Cheshire patients, there being no deaths from these diseases amongst the patients from the other counties. It was these and other considerations he had previously in his mind which had led him to attach more importance to the facts he had brought out in his paper as showing that these differences were local, and local in a narrower sense than one would naturally be induced to suppose. Dr. Robertson had observed that he (Dr. Deas) had not referred these differences to distinct causes. He refrained from attempting this, as we have not all the data necessary for doing so; but he had his own ideas on the subject, and he was inclined to think that local physical conditions and occupations had a good deal to do with the matter. The physical condition was worthy of attention. The two unions which exhibited the greatest peculiarities with regard to a large increase of insanity of a bad type were both, to a great extent, situated in valleys with small rivers running through them, and in both cases these rivers were very much polluted. As regards the physical condition, there is the most striking difference between those unions and the other three. Living in a valley, and on the banks of a river not celebrated for its purity, must have a depressing effect upon the nervous system. Then, along with that evil, there were the depressing conditions of working in close factories; and following upon these adverse influences there was the great prevalence of intemperance. He was of opinion that these depressing physical conditions, accompanied by intemperance, must be powerful causes of insanity. The two unions in question were notorious for the great prevalence of intemperance, and, he had no doubt, of immorality also. There was a large town population in both.

The CHAIRMAN—Are your Lancashire patients chiefly from the town part of the county?

Dr. DEAS—Chiefly from the towns. Although, other conditions being equal, no doubt the congregation in large towns may in itself tend to produce insanity, still there were strong arguments against that view, and in favour of the idea that suburban contributed more to insanity than urban populations. According to published reports, the counties in England which have the largest proportion of insanity of the worst type are the counties which are purely agricultural. Wiltshire, Hampshire, Somersetshire, and Worcestershire, are the counties where there is the largest proportion of insanity, and where there is an immense preponderance of idiots and epileptics; in fact, the insanity of degeneration, either hereditary or acquired. This raises up another question which is also connected with these counties. The average state of intelligence and education amongst the community is at the very lowest possible ebb, therefore leading us to what would be very naturally concluded, that disuse of the brain is more likely to give rise to insanity than the use of it. In districts containing large towns, where there is greater in-

telligence, there is a smaller amount of insanity than in rural districts. I am inclined to think that mere migration into large towns, though in certain cases it might have the effect which Dr. Gairdner has stated, is not in itself a predisposing cause of insanity. I have a strong opinion that there are local causes, partly physical and partly social, such as the water shed, the nature of the soil, the prevailing occupations, &c., which have a powerful effect upon the type of insanity.

THE CHAIRMAN—I did not adduce the town as a cause of insanity; I only brought it up to show how a local cause might be fallaciously urged in connection with the local prevalence of certain diseases. There is a blue book which I commend in connection with this whole subject to the attention of Dr. Deas. It is by Dr. Greenhow. It contains interesting information on this subject with regard to the occupations of the population, and the relative proportions of men and women subject to certain special causes of disease, particularly in regard to the large employment of women in the boot trade in Northamptonshire.

Dr. IRELAND said, with regard to the principle of artificial selection, a clever workman would come to town to learn—say the trade of a carpenter—and earn sixpence or sevenpence an hour, while the stupid man would remain in the country, and be content with eight to ten shillings per week.

Dr. DEAS did not agree with the view which Dr. Ireland had taken, because in those purely agricultural counties migration was almost at a standstill, and the whole mental type of the labouring classes had been affected. It was not a question of selection, but their whole mental and physical type had degenerated from low wages and imperfect nourishment. It was notorious, that with the nourishment given to the children, it was impossible to produce a healthy type. It was these causes which, acting for generations, lowered the class. Very few had energy to emigrate, and amongst them migration was at the lowest ebb.

Mr. JAMES MACLAREN read a paper on “Two Cases of Infantile Paralysis, followed by Epilepsy and Insanity.”

Dr. IRELAND said they had been very much pleased with the interesting manner in which Dr. MacLaren had treated his subject. A number of ideas were thrown into their minds during the time he read his very suggestive paper. So far as he had read this disease seemed to be associated with spinal disease or some incapacity of the nerves. But both the cases in Dr. MacLaren's paper were of centric origin. The first was exceedingly interesting. The faculty of drawing in this case was one of constructiveness, not of imitation. It was a particular species of imitation. There were many cases on record of paralysis of one side of the body occurring in early infancy, and the children growing up. If one side of the brain only was injured, the mental faculties seemed to be almost unimpaired.

Dr. SKÆE was reminded of a case which Dr. Ireland and he saw lately. A labourer asked him to go and see one of his children. He found that the child was suffering from convulsions, owing to worms in the bowels, and when these were expelled the convulsions went away completely. But the child was evidently rather weak minded. She had suffered from convulsions when teething. She had an elder sister of fair intelligence, who had been hemiplegic on the right side since her first dentition. The mother had a congenital deficiency of the right fore arm, which was entirely wanting.

Dr. ROBERTSON observed that cases of the kind to which Dr. MacLaren had referred in his paper were not very unfrequent. He had seen, in young people, a good many cases in which permanent hemiplegia was associated with epilepsy.

Dr. MACLAREN, with reference to Dr. Ireland's criticism of the title of his paper, remarked that much difference of opinion existed as to the true nature of “essential paralysis,” but that the use of the term in the present case might be open to the objection pointed out.

Dr. ROBERTSON read a paper on “Graves' Disease with Insanity.”

Dr. DEAS—I rise to express our thanks to Dr. Robertson for his admirable paper. It is extremely valuable and interesting, particularly in the direction which most of those present who have had to do with practical psychology take a great interest in, namely, the furthering of the view that the forms of insanity are mainly, if not entirely, dependent upon particular somatic conditions. I have never had the good fortune to have such a case as Dr. Robertson has described. While I entirely agree with him in thinking that he is entitled to look upon it as a distinct form, it seems to me the mental symptoms are closely allied to those found in the other forms of anæmic insanity. They belong to the type of insanity coming on after debilitating diseases, or exhaustion of the nervous system, such as the insanity of

over lactation, &c. I think Dr. Robertson himself would place this form of insanity in that group.

The CHAIRMAN—Did you use the ophthalmoscope?

Dr. ROBERTSON—No, the man was too ill.

The CHAIRMAN—I have found, and so also has Dr. Begbie, whose attention to this subject is well known to the Association, that there is a marked difference in the effect of iodine in the exophthalmic form of goitre and in the ordinary form. In the latter, as is well known, iodine is curative; whereas in the exophthalmic goitre, it seem to be positively injurious. There must be an important distinction between insanity associated with this form of goitre and that associated with the Cretin form.

Dr. ROBERTSON, in reply, said the late Professor Trousseau, who had much experience of the disease, did not regard anæmia to be at the foundation of it, and he had not found the preparations of iron to be of material value in its treatment. More particularly with respect to its pathology, there was a dilated condition of the blood vessels of the thyroid gland and of those within the orbit, pointing to an affection of the cervical sympathetic, and when insanity occurred, by analogy it might be inferred that a similar condition existed within the skull.

The following papers were held as read:—"Hydrophobic Melancholia," by Dr. Thomas Anderson, and Clinical Notes by Dr. P. Maury Deas.

On the motion of Dr. DEAS, a vote of thanks was awarded to the Faculty of Physicians and Surgeons for the use of their Hall. A similar compliment to the Chairman, on the motion of Dr. ROBERTSON, concluded the proceedings.

Obituary.

THOMAS PEACH, M.D., J.P.

It is with great regret that we have to report the death of an Honorary Member of our Association—Dr. Peach, of Langley Hall, Derbyshire—for some years the able and courteous Chairman of the Committee of the Derbyshire County Lunatic Asylum. Dr. Peach had long retired from the active duties of his profession, but he, at all times, felt a deep and lively interest in whatever related to the well-being of the insane, and the advance of mental science. He belonged to a class of physicians distinguished for their classical attainments, and the graces of scholarship; and was, moreover, indefatigable in the discharge of magisterial duties. For the following sketch of Dr. Peach's character as a magistrate, and of the position he held in his native county, we are indebted to the columns of the "Derbyshire Advertiser":—

"Full of years and full of honour, a Derbyshire worthy has departed this week from amongst us, and the place of Dr. Peach, of Langley Hall, knows him no more. This venerable and much esteemed gentleman died at his residence on Thursday, April the 9th, on his 89th birthday, to the great regret of all who value Christian worth, and a useful, honourable life.

"The late Thomas Peach, Esq., M.D., was a Magistrate and Deputy-Lieutenant for the county of Derby, and was one of the oldest Justices upon the Bench, having been placed upon the Commission of the Peace in June, 1836. For many years he had been Chairman of Petty Sessions at Derby, in which office he especially distinguished himself by punctual attendance to his duties, and by the moderation, judgment, and tact which he brought to bear in discharging them. His professional education and cultivated experience in the ways of the world rendered him pre-eminently the right man in the right place as presiding magistrate, and we are sure his great personal influence was never brought to bear unduly or for any other ends than those of strict justice. Some time ago, the advancing feebleness of old age caused him to resign his post to Col. Mosley, who had long seconded him in the business of the court, and since that time his attendance has been limited to occasional visits. The deceased gentleman

was formerly a leading physician in this town, and was the senior physician to the Derbyshire General Infirmary for some years.

"In private life Dr. Peach was greatly esteemed, his kind and genial disposition attracting many friends. His politics were Liberal, in the best sense of the term, and we have good reason to believe that he viewed with much disfavour the tendency of some of his party to degenerate into Radicalism. He leaves a family of sons and daughters to lament the loss of a kind and good parent, and their regrets will be shared by all who enjoyed the pleasure of the deceased gentleman's friendship.

"On taking his seat at the County Petty Sessions on Friday, Col. Mosley said — 'The Bench cannot proceed to the business of the day without recording with deep regret the loss the county has sustained in the death of Dr. Peach, who for many years presided at this Bench, and who was an ornament whenever he so presided. He had ever an anxious desire to do justice, and temper it with mercy. He had great perspicuity of intellect, and he was ever anxious to do good to those who came within his influence. He lived highly respected, and dies regretted, but his memory will long live in the recollection of those who had the pleasure of his acquaintance.'

"At a subsequent period of the proceedings, Mr. Hextall, addressing the Bench, also alluded to the sense which he believed all practising in that Court had of the courtesy and efficiency of Dr. Peach in the administration of justice. He was sorry there were not any others of his profession present—some one who had known more of the late gentleman than himself—but still he thought the occasion ought not to be passed by without an expression of regret on his part, speaking only for himself, at the loss which they had sustained.

"Colonel Mosley thanked Mr. Hextall for his remarks, and said it was very satisfactory to them to hear their late colleague spoken of in the terms which had been used by Mr. Hextall."

Appointments.

ANDERSON, T., M.B. (Assistant Medical Officer to the Southern Counties Asylum, Crichton Royal Institution, Dumfries), has been appointed Medical Superintendent to the Mid-Lothian and Peebles County Asylum, Roslin, near Edinburgh.

CAMERON, J., M.B., has been appointed Assistant Medical Officer to the Southern Counties Lunatic Asylum, Crichton Royal Institution, Dumfries, *vice* Anderson, appointed Medical Superintendent of the Mid-Lothian and Peebles County Lunatic Asylum.

CHAMBERS, R., L.K.Q.C.P.I., L.R.C.S.Ed., has been appointed Assistant Medical Officer for the Inverness District Lunatic Asylum, *vice* Haggart, resigned.

CUMMING, W. R., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Assistant Medical Officer at the Middlesex Lunatic Asylum, Hanwell, *vice* Pattinson, resigned.

DIXON, J. F., L.R.C.P.L., M.R.C.S.E., has been appointed Assistant Medical Officer to the Leicestershire and Rutlandshire Lunatic Asylum, near Leicester, *vice* Bowes, resigned.

DRAPER, M. R., L.S.A.L., has been appointed Assistant Resident Medical Superintendent of the Bristol Lunatic Asylum, Stapleton, *vice* Benham, resigned.

DUFF, Dr., has been appointed Resident Assistant Medical Officer at the Oxfordshire and Berkshire Lunatic Asylum, Littlemore, *vice* Hoysted, resigned.

GUNN, R. M., M.B., C.M., has been appointed Assistant-Physician to the Perth District Lunatic Asylum, Murthly.

HOSKING, E., M.R.C.S.E., has been appointed Junior Assistant Medical Officer to the Surrey Lunatic Asylum, near Tooting, *vice* Ward, promoted.

LAWSON, R., M.B., C.M., has been appointed Clinical Assistant at the West Riding Lunatic Asylum, Wakefield, *vice* Newcombe, appointed Assistant Medical Officer to the Lancashire Lunatic Asylum, Rainhill.

MASTERTON, J., M.B., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Assistant Medical Officer to the Wiltshire Lunatic Asylum, Devizes, *vice* Symes, resigned.

PATER, W. T., M.R.C.S.E., has been appointed Medical Superintendent of the Staffordshire Lunatic Asylum, Stafford, *vice* Bower, deceased.

PETIT, J., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Assistant to the Medical Superintendent of the Richmond District Lunatic Asylum, Dublin, *vice* Leney, resigned.

WARD, F.H., M.R.C.S.E., has been appointed Senior Assistant Medical Officer to the Surrey Lunatic Asylum, near Tooting, *vice* Jackson, resigned.

WEIR, A. M'C., M.D., L.R.C.S.Ed., has been appointed Assistant Medical Officer to the Nottingham County and Borough Lunatic Asylum, *vice* Smith, resigned.

YOUNGER, E. G., L.R.C.P.L., M.R.C.S.E., L.S.A., has been appointed Assistant Medical Officer to the Metropolitan District Asylum, Caterham, *vice* Eliot, resigned.

A CORRECTION.—In the last number of the Journal Mr. James Maclaren's name was misprinted in his Notes on a "Case of Chorea."

We regret that, owing to pressure on our space, we have been unable to insert in this number some interesting original communications and reviews which we have received.

NOTICE.

The Annual General Meeting of the Medico-Psychological Association will be held at the Royal College of Physicians, London, on Thursday, August 6th, 1874. Notices of papers to be read, of the names of new members to be proposed, &c., to be sent to the HONORARY SECRETARY, DR. RHYS WILLIAMS, Bethlem Hospital.

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VOL. XX.

PART 1.—ORIGINAL ARTICLES.

The President's Address. By THOMAS LAWES ROGERS, M.D.,
Medical Superintendent of the Lancashire County
Asylum, at Rainhill.

GENTLEMEN,—In assuming the honourable position to which, by your kindness, I have been elected, I must thank you sincerely for the confidence you have placed in me; at the same time I can assure you honestly that, so far from having sought this distinction, only the feeling that one ought not to shrink from any duty to which one is called by one's professional brethren, has induced me to accept it. Looking back upon the many distinguished names who have preceded me in this office, I may well feel some diffidence in addressing you.

Of your former Presidents, two have been removed by death since we last met in this room.

One, Dr. Thurnam, who was present at our last meeting, had twice filled the office of President, and his sudden death, cut off as he was in the midst of his work, evoked the general sympathy of our Association.

Equally distinguished as an archæologist and as a physician, he found in the exploration of the barrows and tumuli of his adopted county abundant material for the studies to which he devoted his leisure hours, and in which he was justly regarded as a high authority.

The writings of Dr. Forbes Winslow, his extensive learning, and the position he held in the professional society of this Metropolis are so well known to you all, that it is unnecessary for me to do more than allude to them. One other distinguished name that death has erased from our muster-roll demands a tribute of respect. Sir Henry Holland, though an honorary member only of this Association, had in his writings evinced a strong predilection for psychological studies, whilst

by his versatile gifts, as an accomplished physician, an erudite scholar, and a graceful writer, by his travelled lore, his eminent social qualities, and his unflagging energy, continuing down to the last moment of an unusually prolonged life, he created for himself a position that was quite unique in society, and has left a blank which will not readily be filled.

Gentlemen,—The subjects on which I invite your attention to-day are neither of a literary nor scientific character, but rather of a domestic nature; they are nevertheless, I conceive, of great importance, and well adapted for attentive consideration by the Association.

Following the precedent of late years, I have arranged for a full discussion on the different subjects that I shall bring before your notice, although in inviting discussion I am aware that I relinquish a salient point, an advantageous position, somewhat similar to that enjoyed by a clergyman in his pulpit, who can anathematize the unorthodox, or those who differ from him in opinion; or to what we have sometimes experienced in a kindred Association, in addresses which have been almost enough to take away the breath of those holding opposite views, without giving them the opportunity of replying.

But besides being sensible of my own incapacity for any such rhetorical display, I consider that the interests of the Association will be best served by a full discussion of the subjects that I purpose to deal with, and for this object alone I assume that you have chosen me as your President.

In considering the treatment of the Insane and the management of Asylums, "Restraint" and "Seclusion" always occupy a prominent place. They are subjects on which it might be supposed that quite enough has already been written and spoken, and I can conceive that the very mention of the names may be sufficient to produce a sense of weariness in my hearers, and yet though "familiar in our mouths as household words," they are terms that are by no means accurately defined, and in the manner of employing them I believe that great divergence exists in practice.

To attempt to define more accurately what is, and what is not, "restraint" and "seclusion," is, it appears to me, a duty peculiarly appropriate to this association, and even at the risk of trying your patience I will venture a few observations.

We have heard of late of something like a re-action having set in in favour of the employment of restraint, and this supposed re-action has been hailed by some with a feeling akin

to exultation, whilst by others it has been deprecated as a retrograde movement towards the dark ages of the treatment of insanity.

I do not myself believe in anything like a general re-action in favour of restraint, and, therefore, consider both the elation on the one hand and deprecation on the other equally groundless, but there are, I think, certain causes to which this supposed re-action is attributable. And, first, as it appears to me, there has been an intolerance on the part of some of our associates towards anything that savours of restraint under any circumstances whatever, and something like a desire to suppress adverse opinions on the subject, not by free discussion, but by invoking sentiment in favour of the non-restraint system, and by appealing to the name and prestige of Conolly against all advocates of restraint in whatever form, and by quoting some expressions of his (uttered probably in a period of depression) of apprehension lest the labour of his life might have been fruitless, and that "future ideas of economy or delusive theories might lead to the abandonment of non-restraint" in the treatment of the insane, as a sort of rebuke to those who are disposed to resort to restraint even under exceptional circumstances.

Far be it from me in this place, and before this audience, to disparage in any way the great work of Conolly and those who were associated with him; indeed were I so minded nothing I could say would detract from his fame; but, on the contrary, it appears to me that the fact that the principles laid down by him have been almost universally accepted and acted upon by a generation to whom he was personally unknown, is a far higher testimony to the sagacity of his judgment than the adhesion to his views of those who, knowing him well, were influenced by his lofty enthusiasm, and by the persuasive eloquence of his teaching.

Even if "restraint" should again become much more generally employed than at present, his position in history as a philanthropist and as a benefactor to a sorely afflicted portion of the human race, would not be rendered less honourable than it is at present.

"Whatever record leap to light *he* never shall be shamed."

But the time has surely arrived when the system may be discussed without any sensitiveness on the part of his disciples, and it certainly ought to be able to stand entirely on its own merits, and without any apprehension that the

cruelties that, in former times, were associated with the restraint system should again creep into practice. In these days of freedom of thought, and still greater freedom of expression, when even the authority of Moses and the Prophets is often rudely called in question, it is not to be expected that opinions in favour of restraint should be suppressed by the shibboleth of a system however beneficent, or of a name however distinguished and honoured.

When, too, we regard the practice of other countries, notably of Germany and France, we find that a frequent resort to restraint is by no means commensurate with neglect of the medical treatment of the insane; on the contrary, no nations have contributed more to the literature of insanity in its medical aspects.

I do not wish to be considered as an advocate of restraint; I have never employed it except in two or three urgent surgical cases, and then only in a form which, in old times, would not have been considered as restraint at all, and I look on its continued employment in other countries to a great extent as being the result of a system of routine continued because it is the custom, rather than from its actual necessity. I was strongly impressed with this view in visiting an asylum in one of the Austrian States last year, in which with abundant cubic space, lofty rooms and spacious galleries, and a quietness to which I was totally unaccustomed, I found most of the recent cases under manual restraint.

By some the extreme quiet and tranquillity might be attributed to this very free employment of restraint; I, however, thought it due to the ample space of the wards, and regarded the restraint as entirely superfluous.

Another cause which may operate in producing the supposed re-action against the system of absolute non-restraint is an apparent tendency on the part of the official authorities to widen the definition of restraint, and thus by narrowing the meshes of the net, whilst more small fish are captured, the greater ones sometimes break through.

That this effect is not always produced we have lately had an instance in the admission of a Superintendent of an asylum that he had discontinued for a time the use of the "wet sheet," although he had found it beneficial in certain cases, because it had been considered "restraint."

This is a familiar illustration of the vulgar adage "give a dog a bad name," &c., but it would be a matter of regret if any mode of treatment which had been found beneficial

should be given up because it was called by an unpleasant name.

I speak without any bias on this subject, never having myself observed any good effect produced by wet packing, probably because I have not selected favourable cases, but it must be admitted that our category of therapeutics of generally recognised value in the treatment of insanity is not so extensive that we can afford to lay aside any of proved efficacy, and it would be a misfortune if the sensitiveness of the physician were to be considered before the benefit of the patient.

It is held by jurists that any legislation that tends to make artificial crimes is bad, and on the same principle any definition of restraint which includes modes of treatment that are employed in ordinary practice, merely because they are used in asylums is, I think, unsatisfactory.

Now the practice of wet packing is, I believe, largely employed in hydropathic establishments, where people voluntarily undergo, and fancy they derive benefit from it; at all events it may be assumed that no ill effects result from its use, and a similar mode of treatment has been strongly recommended in fever and other acute diseases, and to call such treatment restraint when it is employed in asylums seems to me an artificial distinction. On the other hand, it has been remarked that the chief advantage of the "wet sheet" is that it effectually restrains the movements of the patients on whom it is applied, and that this is its principal merit, and thus it might come to be used as a means of restraint, pure and simple, and the same remark would apply with still greater force to what is called "dry packing"—a mode of treatment that I only know by report.

It is very obvious that abuses might creep in if such modes of treatment became general, and we might thus drift back to a full use of restraint under a more euphonious name, but I think that this might be guarded against by entering in the "Medical Journal" every case where either is employed, but under some other heading than that of "restraint."

So again with the use of gloves, which are an everyday article of clothing, at least among the wealthier classes, but they might be so made as to be very efficient instruments of restraint. A considerable number of my patients (chiefly women) suffer from chilblains during the cold weather, and require protection for the hands, but as these very patients are generally the least able to take care of themselves and their property, unless the gloves were secured in some manner they

would certainly lose them, and probably just at the time when they were most needed, but it would be almost an absurdity to call such protection "restraint."

Intention should always be taken into account, and it is a different thing using gloves to protect the hands from cold, and to prevent a patient destroying his clothing or injuring himself, but though the latter use has been considered restraint, it is a question whether by so condemning it we do not lose somewhat of substantial benefit to our patients in straining after the ideal purity of absolute non-restraint.

I think that a less obnoxious term than "restraint" might be adopted for this use of gloves, at the same time that their employment, as well as that of all kinds of mechanical contrivances for securing other portions of the dress should be duly recorded, and to this I would add every instance of mechanical restraint where the instruments are the hands of attendants.

To approximate the treatment of the insane as far as possible to that of sick people in every-day life, and to make it as little special as possible is, I think, the line of conduct that is both most rational, and most conducive to the benefit of those treated, and any exceptional mode of treatment should be recorded, not less as a safeguard to the physician employing it, than to ensure the patient against even the suspicion of any harsh mode of treatment.

What I have remarked about the definition of "restraint" applies even more strongly to the use of "seclusion."

In the 27th Report of the English Commissioners in Lunacy, they express the opinion "that in a remedial point of view the value of seclusion has been much exaggerated, and that in many instances it is employed unnecessarily and to an injurious extent, and for periods which are quite unjustifiable."

Now, if by the term "seclusion" were meant shutting up troublesome patients in a dark room, perhaps on low diet, and merely for the purpose of getting them safely out of the way, I fancy that no one would call in question this dictum, but as their interpretation of seclusion seems to include every patient who occupies a separate room in the day-time with the door fastened, whether for bodily illness, for observation, or for mental excitement, and independent of the room being dark or light, I cannot agree with their opinion that the "value of seclusion in a remedial point of view has been much exaggerated."

If the system of unlocked doors in asylums advocated by

Dr. Batty Tuke, and carried out by him at the Fife asylum, were generally adopted, one could understand the sensitiveness as to patients being locked in single rooms ; but as I fancy we are as yet not quite prepared to adopt that system, and to allow perfectly free ingress and egress of patients to and from their wards, I fail to see why locking up a patient in a ward with several others should be regarded as right and proper, and placing him in a room by himself should be altogether objectionable. On this point I cannot forbear quoting from an article on Seclusion by Dr. Bucknill, published in an early number of the "Asylum Journal" (April, 1855).

"Assuming" (he says) "that which will scarcely be denied, that seclusion from society at large is necessary for the protection and welfare of the insane ; where this step has been taken, and large communities have been secluded in asylums from the excitement of the outer world, it cannot reasonably be maintained that one and the same amount of seclusion is all that is requisite for every variety of case.

"The principle of seclusion being recognized in the very existence of asylums, it is inconceivable upon what grounds it can be denied that more or less of seclusion may be needful in the treatment of various cases of insanity, differing enormously from each other, as they do, in the intensity and character of their symptoms. Having secluded the inmates of asylums from the excitement of society at large, on what principle can it be maintained that none of them can ever need, for a time, to be withdrawn from the excitements of that society to be found in the asylum itself, and that one exact measure of seclusion is the proper dose in all cases ?"

The whole of this article (which I have only recently met with) is so completely in accordance with my own views on the subject that I should have liked to have quoted from it at greater length, but my object at present is, not so much to defend or advocate seclusion, as to show cause for a better definition of the term than at present prevails.

In a paper which I read before this Association in 1872 on this subject, the unanimity of opinion in favour of seclusion was very remarkable, and yet the difference in practice, to judge from the various asylum reports, is so striking that I can only explain this on the supposition that every superintendent defines seclusion in his own way.

I have certainly known the traditional seclusion in one asylum in former times to mean only confinement in a single room with both door and shutters securely closed, the room

being almost in complete darkness. If my surmise is correct, it follows that the practice of different asylums may be less unlike than their published reports would lead us to infer.

The term "seclusion" as at present understood, applies indiscriminately to treatment having entirely different objects, the one being purely medical and employed for the benefit of the patient, and the other being of a repressive nature, and used for the sake of discipline, and for the benefit of others. Now it is to the use of seclusion in the latter sense that the remarks of the Commissioners are, I fancy, mainly directed, and on this point it will probably be generally admitted that the less it is employed the better. But seclusion as used for the benefit of the individual is, I consider, an essential element in the treatment of the insane.

For what does seclusion in this sense mean but removal from causes of excitement by placing the patient under the most favourable circumstances to secure for him that quiet and rest to the organ affected—the brain—which would be prescribed in the case of disease affecting any other organ of the body? Indeed, when the advantage of perfect rest in the treatment of any other important organ is so thoroughly recognised in general practice, it would seem almost superfluous to insist on its necessity in disease affecting that most sensitive of all organs; and here I think our specialism leads to error, and that in adapting our treatment of the insane to principles that are incontrovertible in general medical and surgical practice, we follow in the lines of rational and scientific medicine.

It has often struck me as very inconsistent in our practice that we should give large doses of sedatives, and yet at the same time place patients in the most unfavourable conditions for those medicines to have their intended effect. Instead of endeavouring to favour the action of a sedative by keeping a patient as quiet as possible, and in a somewhat darkened room, he is placed in a day room with a lot of others as bad as himself, or turned out in an airing court, and made to walk off the effects of the medicine he is taking.

Again, the opportunity for correct observation of a patient is much interfered with when he is associated with numerous others in large day rooms and galleries, the effect of medicines cannot be so well ascertained, nor the diet be so carefully regulated, and a patient may even escape medical observation altogether, which is insured when he is under separate treatment.

A case in point occurred to me last year, in which a patient declared that he had not eaten anything for three weeks, and the attendants were unable to detect him in procuring food. As the man showed none of the usual signs of abstinence, it was evident that the sympathy which so commonly exists amongst insane patients, had prompted someone to convey food to him secretly, but for a time he created quite a sensation in the ward, and was compared to the "Welsh fasting girl." Taking advantage of his complaining of being ill, I placed him in bed in a single room (in a word in seclusion), and from that day he never refused his food.

It is to the treatment of recent cases that these observations more particularly apply, and in which the good effects of temporary seclusion are most clearly demonstrated, and to its free use I attribute the very rare event in my own practice of a death occurring from maniacal exhaustion, a cause of death that I regard with much the same feelings as I do a suicide.

I know it is said by some of our brethren, "we do not employ seclusion, we tell our patients it is for their good that they should remain in bed by themselves until their excitement passes off, or as long as their condition requires it, and they appreciate our motives, and remain quietly in bed in accordance with our wishes."

Well—happy are the patients who are under the care of gentlemen possessing such power of moral persuasion, and still more to be envied those Superintendents who are blessed with such docile patients! But is not this the strongest testimony in favour of separate treatment, and even in these well-regulated institutions, it must, I should imagine, occasionally happen that some patients most requiring separate treatment will prove not amenable to this moral discipline, and in asylums where unfortunately the Medical Officers are not gifted with such powers of moral suasion, or where the patients are of a class that are not amenable to moral discipline, are they on that account to be deprived of treatment which is admitted to be beneficial in similar cases?

I think we should be acting on a safe rule if we were to place ourselves in imagination in the circumstances of our patients, and consider what treatment we should prefer in our own case, and I fancy there is scarcely one of us who, if he had the misfortune to be a patient in an asylum, would not think it a boon to be allowed to separate himself sometimes from the society of his companions in misfortune.

It will no doubt be said that many patients who are most prone to seclude themselves, are just those in whom association with others is most beneficial; but when every patient is individually treated, the medical officer should surely be the best qualified to determine what is the best treatment in any particular case.

I have a patient at the present time, a very violent and quarrelsome man, whom I dare not employ at his trade in company with others, but I have for some months kept him locked up in a single room making shoes, and the result is, that instead of being as formerly, a destroyer, he is now a producer, and has in general derived some of the benefit that labour always confers; but this patient certainly spends a good portion of each day in seclusion.

Let me not be understood to depreciate the power and value of moral influence, but it is evident that "moral" means are powerless in many instances. What moral influence could check the delirium of a patient suffering from fever, or from an attack of acute mania, or that accompanying progressive disease of the brain, or the furious excitement that is common in epilepsy?

Happily, however, there are generally remissions of disease in which moral treatment can be brought to bear.

My purpose in dwelling so long on these subjects is not so much to ventilate my own views as to suggest a remedy for that which I know many of my brethren as well as myself regard as an evil, the want of a definite understanding as to what ought to be called seclusion.

It is not agreeable to find treatment that one considers most beneficial to one's patients condemned as injurious and unnecessary; speaking for myself, however, I must say that if I abstained from any treatment which I was satisfied was the most advantageous to my patients, from a desire to court official commendation, or avoid animadversion, I should consider myself untrue to my patients, to my profession, and to my own conscience.

But the injured self-love of an individual is, after all, a matter of small importance, affecting only himself, or at most the institution with which he is connected, and a man's opinions are not worth much, nor should I esteem the man himself very highly, if he were not prepared to expect some misrepresentation, and to endure some amount of obloquy in defence of them; and if those who share my views are in a minority, we must accept the common position of minorities

until we can convert the majority, or be converted ourselves. But, as I before hinted, I believe there is less divergence of opinion than appears on the surface.

We may fairly claim for this country that, as regards the treatment of the insane, we are in the van of progress, and it is for this association to give expression to the views prevailing in our branch of medicine, but let these be clearly expressed, and let practice and profession correspond, and even if our system lose somewhat of its theoretical perfection, it will at least rest on the surer basis of honest conviction.

My proposition is that the term "seclusion" shall be limited to the confinement of patients in their own rooms for violent propensities, or for excitement, in so far as it affects others, and that treatment in single rooms, for bodily disease, or for the *bona fide* benefit of the patients, shall be known by the milder term of "separate treatment;" but to avoid any suspicion of the milder term being employed for the harsher, I would have every case of "separate treatment," as well as every case of seclusion, duly recorded, in the same manner as a record is at present kept of all patients who are ill in bed, and who are unemployed, and that the use of the "wet sheet," and of gloves, as well as of all kinds of wearing apparel, made in such a manner that a patient cannot unfasten them himself, should be classed under the head of "Special forms of treatment."

Should the proposal meet the approval of the Association, I suggest that a communication should be made to the Commissioners in Lunacy, by deputation or by letter, inviting them to accept the definitions or to suggest others, and from the readiness which they have always shown to meet the views of this Association (I may instance particularly their adoption of the statistical tables recommended by a committee of the Association), I have no doubt that a satisfactory understanding can be attained.

I have before remarked that the less special our treatment of the insane is rendered, the more we move in the path of rational progress; but unfortunately the subject of insanity is with the profession, almost as much as with the public, a subject to be avoided, unless, indeed, when some fault, either real or imaginary, on the part of those who spend their lives in working for the benefit of the insane, brings asylums in a sensational form before the public, and an attempt is made by spasmodic declamation to atone for years of neglect.

It is, however, a matter for congratulation that our Asso-

ciation numbers among its members many men distinguished for their excellence, either as teachers or as practitioners in the art of medicine, amongst whom I may be permitted to mention the names of Drs. Lockhart Clarke, Samuel Wilks, and Hughlings Jackson, whilst many others, without actually belonging to our Association, contribute to the advancement of our specialty by their teaching and writing.

It would be difficult to over-estimate the advantage we derive from the presence among us of men who, from their large and varied experience, are able to bring additional acumen to bear on psychological subjects; and for my own part I should like to see their number largely increased, and I may be permitted to hope that the feeling with which we welcome them is reciprocated.

It is only by a more just and full recognition of the claims of our specialty to be considered and admitted as a branch of medical education that we can hope that our motives and conduct can ever be properly understood and appreciated, and that the treatment of the insane can come to be regarded as, in subsidiary matters only, differing from that of other diseases.

Without going as far as the noble Chairman of the Lunacy Commission, who, in his evidence before the Select Committee on Lunatics, is reported to have expressed his belief "that a sensible layman conversant with the world and with mankind, can give not only as good an opinion, but a better opinion than all the medical men put together," I think it must be admitted that the mere fact of a man possessing a medical diploma does not constitute him a competent judge on any doubtful case of insanity, and the manner in which so many certificates of insanity are filled up strongly bears out this view; in place of facts, inferences and deductions from facts being inserted, and the facts themselves being very often not more indicative of insanity than of anything else. Indeed, I am afraid that the manner in which many medical certificates are written, on which patients are admitted into asylums, scarcely testifies more to the thoroughness of the general education of the certifiers than to their familiarity with insanity as a disease.

It would be a matter of surprise, did not daily experience convince us that critics by no means possess a monopoly of wisdom or knowledge, that this fact should not be made a little more of. We have often heard loud complaints that any man's liberty should be at the mercy of one or two

medical men, who, by signing certificates of insanity, are able to procure his confinement in an asylum, but I do not recollect ever having seen it suggested that the certifiers should be required to possess some knowledge of the disease which they declare the individual is suffering from. Possibly, however, it might be considered that the power of certificates would be all the more dangerous when exercised by so-called "mad-doctors." It must, however, be admitted that in spite of this want of practical acquaintance with the subject it is a rare occurrence for any person to be confined in an asylum in whom there is no evidence of insanity. Whether placing a patient in an asylum is always requisite, or the best method of treatment, is another question, to which I shall return presently.

A case that created some notoriety last year at the Macclesfield Asylum illustrates both the extreme unfairness with which matters relating to lunatics and asylums are so frequently treated by the press, as well as the peculiar views held by certain professional men who think themselves competent to instruct their fellows; and in alluding to it here I know I can assure Dr. Deas of the sympathy that was felt with him by every member of the Association for the annoyance to which he was subjected, and of their satisfaction at the complete refutation of charges that ought never to have been made. Here we found newspapers of respectable reputation adopting a charge made anonymously, and on the bare statement of a lunatic, gravely reflecting on the character of a public institution, and of the officers connected with it, treating the charge in leading articles as though it were already proved, and subsequently compressing its complete refutation, after an inquiry which had occupied two of the Commissioners in Lunacy two whole days, into half a dozen lines of small type. But what I more particularly wish to refer to here is the view put forth by a medical correspondent, that an infraction of the law had been committed, and an injury done to the individual by placing her in an asylum before she had become dangerous! A more retrograde idea of the nature and purpose of a lunatic asylum could scarcely be conceived. To wait until an insane person has committed some act which would in one sane be followed by punishment, before placing him under treatment, is not only to delay the opportunity of successful treatment, and so to favour the disease becoming incurable, but also to degrade a hospital for the treatment of disease into a receptacle for potential criminals.

But we can hardly be surprised at the unreasonable manner in which the subject is treated by the lay press, when we find the medical journals following in the same line; and certainly nothing has of late years done some of these more discredit than the manner in which everything connected with asylums has been handled. But were the nature and treatment of insanity once fairly recognised as a necessary branch of medical education, criticisms and strictures, which I believe proceed more from ignorance on the subject than from intentional misrepresentation, would soon cease to have any influence.

Asylums have been stigmatized as "dark places," but if dark, the fault lies with the profession and the public for the lack of interest they take in them, and there certainly should not be anything in an asylum that would not bear inspection either by day or night; but the best way of admitting light would be by making them, where practicable, schools for the clinical study of insanity.

No greater incentive to work could be desired for the Medical Officers of these institutions than the presence of a class of students, who would be quick to notice any deficiencies on the part of their teachers, and who, carrying with them into practice a recollection of what they had observed, would not only have a better appreciation themselves of the manner in which the insane are treated, and of the difficulties experienced in treating them, but would be able to influence public opinion by the diffusion of juster views than are at present commonly held.

It is true that of late years an attempt has been made, by nominating lecturers on Mental Diseases to all the principal medical schools both in the metropolis and in the provinces, to recognize the importance of the subject as a branch of medical education; but as this hitherto has only been an optional instead of a compulsory course, the arrangement has not been more successful than permissive legislation usually is, and the value of the gratuitous instruction thus offered has been so little esteemed that in very few instances has there been anything like a full class; and the additional inducement of a substantial luncheon has been tried sometimes, but not always successfully, to bring a class together. But surely a physician ought not to be expected to provide food for the body as well as the mind, and such a custom reminds me of a story I once heard of two rival photographers, one of whom offered to take a likeness for nothing, but was outbid

by the other, who offered the sinner a rasher of bacon into the bargain.

But if instruction is worth having, surely it is worth paying for, and there can be no valid reason why the subject of mental diseases should be placed on a different footing from other subjects in the curriculum of the Medical Student.

The chief objections that are advanced against the addition of any fresh work to be undertaken by Medical Students are the already too numerous lectures they are required to attend, and, in the case of institutions for the insane, their distance from the Medical School, and the consequent loss of time occupied in going and returning.

The first objection has already been partly met by the proposal to eliminate Botany and Chemistry from the compulsory studies of the student, by permitting them to be included in the preliminary examination to be passed before the professional education commences. And certainly botany seems rather out of place in a course of strictly professional study, whilst chemistry is so attractive a science to youths, that it might well form part of the preliminary education. With regard to the distance, I think that an afternoon spent once a week in an asylum for the three months of the summer session would be time very well occupied, and the additional expense to the student might be met by a corresponding reduction of fees.

On the advantages—I might almost say necessity—of a familiarity with insanity and its symptoms, treatment, and causes, to those members of our profession who are employed in the public service, as well in the naval and military as those who hold prison or poor law appointments, I will not dilate, but as cases of mental disease in the earliest stages generally come under the care of medical men in general practice, it can scarcely be maintained that some practical acquaintance with the disease is unnecessary.

At present the division of practice is very unsatisfactory, both as regards the benefit of the patients, and the opportunities for treatment offered to the medical officers of asylums, as those who hold public appointments have as a rule to admit all patients who are sent to them indiscriminately, and being generally precluded from private practice, have not the advantage of seeing patients in the initiatory stages of disease, and experience, as a rule, great difficulty in learning anything of the previous history, and the causes which have brought on the attack; and even those who are

engaged in private practice often I fancy do not see their patients as early as they could wish, from a sort of aversion experienced by patients in admitting that any mental disorder threatens or exists so far as to consult a specialist, whilst most of us can, I have no doubt, recall instances in which the initiatory treatment has been the opposite of what is generally considered admissible in this class of diseases.

We have frequently in this room heard and taken part in discussions as to the increase of insanity, and also as to whether treatment in an asylum, or at their own homes, is the most advantageous to the patients.

The discussion as to the increase of insanity has, I suspect, generally left those who took part in it in the same opinion as they first held; but without entering into this vexed question, my own impression is that ephemeral cases of insanity occur more frequently than formerly. Even in my own limited experience, I have met with such cases, where all the symptoms have subsided without any special treatment, cases too occurring in more than one member of the same family, where there has been, as far as could be ascertained, no hereditary predisposition; and some remarks on this subject in a review in the last number of the "*Journal of Mental Science*" support this view. This bears upon the second question, the advantage or disadvantage of treatment in an asylum. That such cases recover without any special treatment is the strongest argument against their being sent to an asylum, and it is here that the advantage of greater familiarity with mental disease amongst the profession at large would make itself most felt. In recognizing the earliest symptoms which threaten insanity, and by appropriate treatment warding off an actual attack, is the province of "preventive medicine," which in our specialty has been hitherto too much neglected; and unquestionably the best mode of treating insanity is by preventing its occurrence.

Even if it were incontestably proved that insanity were materially on the increase, the fact would not be a wholly unmixed evil, if it resulted that more just views were held concerning it—if it came to be regarded as a disease to which anyone is liable, instead of, as at present, a mysterious affection, and the subjects of it being regarded with aversion, and like the lepers of old as unclean, a feeling which is, in some degree, unfortunately often extended to those under whose care they are placed.

When we see how one form of neurosis may appear as another in a second generation, how epilepsy and neuralgia, and also habits of intemperance in a parent may be followed by mental disease in the offspring, it must be admitted that a better understanding of their relations one to another amongst the profession at large would be of no small advantage to the public.

If these views find favour with you I conceive that the influence of our Association might be usefully employed in impressing them on the profession through the various examining bodies and the Medical Council, and the present seems a favourable opportunity for making an effort in this direction, as a "Committee of Reference" is now employed in drawing out the regulations relating both to the preliminary and professional education of candidates for examination by the Conjoint Board. I have here their "Report on the Professional Examination of Candidates," and the names of the committee are a guarantee that a unanimous expression of opinion on the part of the Association would receive due consideration.

Our department of medicine and the best interests of the insane have suffered from the state of isolation in which we are placed, and the diagnosis and definition of insanity, instead of being treated as a purely medical question, has been a sort of battle field, or at least neutral ground, between the lawyers and doctors. It is time that we made an effort to claim for the profession of medicine the right to determine what does and what does not constitute insanity, whilst we leave to the lawyers the legal questions affecting the insane.

The legal restrictions affecting the admission of patients into hospitals for the insane must always distinguish such hospitals from those for the treatment of every other kind of disease, and this necessarily acts disadvantageously in the relations of the patient to his medical attendant, any kind of compulsory treatment being liable to incite opposition, as we see in the opposition to the "Vaccination" and "Contagious Diseases" Acts; but it cannot be denied that the protection afforded to the public in providing against any improper infringement of personal liberty more than counterbalances any inconvenience that may arise from these restrictions. I should, however, like to see the experiment tried of a hospital for the insane, instituted on precisely similar conditions as to the admission of patients as any other free

hospital. If such a scheme would be sanctioned by the legislature, the experiment might be favourably tried at the institution now in course of erection at Virginia Water, founded by Mr. Holloway. Such a scheme will no doubt appear chimerical to many, but I can perceive no conclusive reason why patients suffering from mental disease should not be admitted voluntarily into a hospital without certificates, but merely on the judgment, and after a personal examination, of the Medical Officer of the Hospital, notice of all such admissions being forwarded then, as at present, to the Commissioners in Lunacy, and the institution being of course under their inspection precisely in the same manner as any other asylum. The patients might make a voluntary agreement to remain as long as the Medical Officer considered desirable, or to give a certain notice (say a month's notice) of their desire to leave, and a further period of two or three weeks to elapse before they actually left, to allow time for their friends to make provision for them elsewhere, if they insisted on going out.

One cannot predict how far such an arrangement would answer the purpose intended, or whether there would be a sufficient number of persons found acknowledging themselves insane to keep the institution going, but I think the experiment might be tried with advantage both to the public and to the patients who might be expected to submit themselves to treatment.

The provision for the proper care and treatment of pauper lunatics is a subject that may appropriately engage the attention of this Association, especially under the new phase of recently proposed legislation.

Apart from the vexed question as to the increase of insanity, there can be no doubt the proposed capitation grant from the Consolidated Fund for every lunatic in an asylum will very materially increase the number of patients by causing the transfer of such as are at present in workhouses or with friends, to asylums. Now the feeling against still further increasing the magnitude of our pauper lunatic asylums is, I believe, almost universal, but as it is certain that the demand for the admission of patients will be very much increased if the law comes into operation, the question is, how is this demand to be met? If this enactment merely, or principally, had the effect of causing all recent cases to be submitted at once to treatment in asylums, instead of their being, as they too commonly are at present, detained in workhouses, the

result would be entirely beneficial; but there is every reason to apprehend that instead of this being the effect, the new admissions will consist not of recent, but of chronic and incurable cases, and imbeciles, who have hitherto been maintained elsewhere.

The great increase of the admissions into asylums following the passing of the "Union Chargeability Act" teaches us what we may expect from the proposed grant from the Consolidated Fund for the maintenance of lunatics in asylums.

Under this arrangement it will be to the direct pecuniary advantage of the unions and parishes to relieve themselves of a large portion of the cost of the maintenance of imbecile and epileptic paupers, by sending them to asylums, and we all know that it is principally financial considerations that govern the action of these bodies.

The determination to exclude the newly-established "Metropolitan Asylums for Imbeciles" from participation in this grant strikes a direct blow against what I consider some of the most useful institutions that have been established of late years, and instead of the number of these being increased, those at present in existence will scarcely be kept up, because, however economically they are conducted, the cost of the maintenance of their inmates will always be more than the charge for patients in asylums when the capitation grant is deducted.

Whatever objections may be urged against the aggregation of idiots, imbeciles, epileptics, and chronic and harmless lunatics in spacious buildings set apart for their especial use, it cannot be denied that it is the duty of the State to provide for these helpless ones, who cannot make provision for themselves, and it would be more to the purpose if those who condemn such provision, and who speak of the cruelty of shutting these unfortunates out from the world, and immuring them in vast establishments, would suggest some practicable plan for otherwise dealing with them.

It is certain that keeping them in workhouses is about the worst mode of disposing of them.

I believe our experience is unanimous that even of the cases that are considered best adapted for detention in workhouses, a large proportion are returned to asylums after a longer or shorter interval, in a very much worse mental condition than that in which they were discharged. A much better arrangement, when it can be carried out, is no doubt for provision to be made for them by their friends, or by strangers in blood,

either a portion, or the whole, of the cost of their maintenance being allowed out of the poor rates, and regular inspection being provided; but when we look at the manner in which the poorer classes are housed in this country, whole families frequently occupying a single room both for living and sleeping, who would propose a further addition to such horrors by adding an insane inmate or two to share such accommodation?—and of the neglect and ill-treatment of the imbecile and weak-minded when left entirely to the care of their relations, without any official supervision, we have abundant and daily recurring testimony.

Under any circumstances, the proportion of imbeciles or chronic lunatics who could, in this densely populated country, where the ever-increasing tendency is to aggregate in cities and “populous places,” be thus disposed of, must be infinitesimally small, and there will still remain the great bulk to be provided for.

Only one advantage I can discern in the proposed grant, which is, that the demand for new asylums, and the extension of old ones, will be so much increased that the public will get tired of such constant calls on the rates, and that the whole subject will have to be re-considered on a more comprehensive basis, instead of on the piecemeal legislation which has been the fashion of late years.

In the County of Lancaster, for example, there are now three asylums, and a fourth partly completed, which will afford accommodation altogether for about 3,700 patients, but in addition to these, there are now in workhouses 2,400 lunatics and idiots, besides the few (260) who are placed out with friends or others. When the new regulation comes into force, there is every reason to anticipate that efforts will be made to transfer the majority of these to asylums, and in that event the only way of meeting the demand will be by adding two or three new asylums, or by increasing those which are at present sufficiently large. This subject is therefore one which may most usefully be considered by this association, and though the legislature may not think it necessary to ask our opinion in the matter, I see no reason why, if this opinion is at all unanimous, it should not be voluntarily proffered.

Taking the Report of the Commissioners in Lunacy for 1873 as a basis, there are now in asylums and hospitals in England and Wales, about 30,000 lunatics, and in workhouses 14,000, who under the capitation grant will probably be sent to

asylums as soon as possible. What is the best provision to make for them? To keep them in workhouses is about the worst mode of disposing of them; on the other hand they do not require such care and attention as acute cases of mental disease, and might be provided for in establishments of less costly and elaborate structure, and with a smaller staff of administration. I submit the following propositions to the Association—that besides institutions for idiots who are capable of training, and hospitals and asylums for recent and curable cases of mental disease (to which there should be generally attached a medical school), further provision should be made for chronic and harmless lunatics, imbeciles, and idiots, upon the plan of the Metropolitan Asylums for Imbeciles, and for criminal lunatics by establishing district asylums specially for this class.

The evil of associating criminals with the ordinary inmates of asylums is sufficiently notorious, and has been so often dwelt upon, and so recently as the last annual meeting of this association, that it is unnecessary to go into details, but as it was hinted by a member of the Government during the present session, that so far from increasing the State asylum at Broadmoor, it was under consideration to transfer some of the criminals there detained to their respective counties, it is desirable, if possible, to prevent such a plan of dealing with them.

The Act of 1867, by considering insane convicts whose sentence had expired as ordinary pauper lunatics, and so transferring them to county asylums, inflicted great injury on these institutions, and unless a strong remonstrance is offered, it is to be feared that further injury will be inflicted in the same direction.

There is no valid reason why convicts who are insane should be sent to asylums, any more than convicts who are sick to any other kind of hospital, and the amount now proposed to be given away to Unions and Parishes, in the form of a capita-tion grant for the inmates of asylums, in one year, would defray the cost of erection of two such convict establishments.

The subjects I have brought before your notice are such as deeply concern us, and may, I think, very profitably be discussed by the Association.

Concerning each, much more might be said than I have been able to compress into the limits of this address, but deficiencies on my part may be well supplemented by the expression of opinion by other members.

In conclusion, I must beg the indulgence of my hearers for a few minutes, whilst I venture to offer a few observations on the attitude that we should assume, and the duties that we owe one to another as members of this important Association.

It has been often remarked that one reason of the greater influence possessed by the legal over the medical profession is that greater cohesion among themselves, a more thorough *esprit de corps*, exists amongst the lawyers than between ourselves, and the remark applied to a nationality, that "where one man was to be roasted, half-a-dozen were ready to turn the spit," might, I am afraid, with equal truth be applied to the profession of medicine.

Now, although I believe that less of this feeling of jealousy (or from whatever cause it springs) exists amongst our specialty than amongst the profession at large, and although it would be childish to complain of fair and honest criticism, it must I think be admitted that our somewhat isolated position, and our liability to attack on all sides, render it more imperative upon us to maintain a kindly spirit of consideration and forbearance one towards another. It is frequently said that as a body we neglect our duties as physicians in devoting our attention too much to architecture, farming, questions of hygiene, &c., to the neglect of pathology and therapeutics, and these remarks, originating perhaps with some member of our own body, are echoed parrot-fashion by the medical press generally, until it comes to be held as a fact that with very few exceptions we lower our more strictly professional character in assuming others of less dignity and importance.

Now, whilst fully recognizing and appreciating the labours and researches of those who make pathology or therapeutics their principal study, it cannot be maintained that in this consists our whole duty, which is undoubtedly also a present and immediate one, towards our patients, and the field over which this extends is so extensive, that it is to the advantage of the profession, as well as to the public, that we should pursue our end by different ways. The "Procrustean" system is not more the type of an individual despot or tyrant, than of officialism, or of society and fashion in general.

As one man with high literary attainments might never attain the manipulative delicacy necessary for making microscopic sections of the brain, so others whose chief capacity lies in administrative functions might be only wast-

ing their time and neglecting their more immediate duties in endeavouring to prosecute original research.

The effective study of pathology demands early and special training, and great manipulative dexterity in using the microscope, and it is quite possible for a person to fail of achieving success in this branch, whilst he has at the same time neglected subjects in which he might have made practical advances, and have added to our general stock of knowledge.

Indeed, with regard to this particular study, I think the practice adopted in some of the asylums in America of appointing a special pathologist is well worthy of being followed here; and in the metropolis, at least, such appointments might easily be made, and without much extra cost.

On behalf of architecture and hygiene, too, as applied to the structure and condition of asylums, and the treatment of the insane, much may be said.

It may safely be asserted that a neglect of sanitary precautions may cause more deaths in a few weeks than special neurotic treatment will cure cases in as many years; that bad architectural arrangements may seriously interfere with the classification, and almost neutralize the treatment; and that increased cubical capacity of a ward, in other words, a more liberal allowance of "elbow room" for patients, is of more efficacy, in a tranquillizing point of view, than sedative drugs.

The general immunity from epidemic diseases which our asylums enjoy is mainly attributable to the care and attention bestowed on the selection of sites, and to their generally good sanitary arrangements, and for which credit is due to the Commissioners in Lunacy.

A neglect of these matters in times gone by, as subjects beneath the notice of the profession, has certainly had the effect of retarding the progress of medicine and surgery, and it was left to a non-professional person—Miss Nightingale—to reform our system of nursing, including the preparation and administration of food, on which so large a measure of success in medical practice depends, and what Miss Nightingale has done for nursing, Captain Galton, assisted by Dr. Sutherland, appears to be now undertaking for the improvement of our general hospitals.

Unfortunately no training institutions for nurses and attendants exist for us, and therefore it is the more necessary

for every superintendent of an asylum to be himself well informed on all matters of detail.

If any illustrations were needed of the value of sanitary science, and of the danger of neglecting its teaching, I might instance that afforded by our military experiences, and compare the campaign in the Crimea with the later ones of the Red River, Abyssinia, and the Gold Coast.

In behalf of the much despised farming too, something may be said. It can scarcely be meant as an accusation against Medical Superintendents who take an interest in agricultural pursuits that they give up time to them which ought to be devoted to their patients; indeed it could hardly be seriously asserted that the few acres which are attached to any of our English asylums would furnish sufficient employment to anyone so disposed, and if merely pursued as a hobby, what more harmless or healthful recreation could be proposed? And it must be admitted that anyone having the responsibility and anxiety of the care of a large number of lunatics requires some extraneous employment or amusement in the way of recreation.

The ancient Romans did not hold agriculture in such low esteem when they called Cincinnatus from the plough to take the helm of the state, or when Virgil sung of the delights of pastoral life; and both he and Horace cultivated farms of their own.

Besides, the small quantity of land attached to our asylums affords favourable opportunities for the solution of sanitary and social problems, such as the disposal of our sewage, and it might be still further utilized by producing different kinds of crops, and so enlarging our knowledge of the effects of various kinds of food, as to which it has always struck me that too little attention has been paid. Instead of keeping to a close routine in the matter of diet, and devoting all our attention to the effects of certain drugs, I think experiments similar to those lately published by Dr. Parkes would be of advantage, both to our patients and to the profession and public in general.

In making these remarks, I speak without bias. Having no hobby of my own, I am often disposed to envy those who have, and who can thus take refuge in a little world of their own, in which they have implicit faith, and from pursuing which they can return to their duties refreshed and re-invigorated.

Our two-fold position as physicians and heads of com-

munities, whilst it affords great opportunities of doing good in our generation, demands something more than mere professional knowledge, whilst our Association is of sufficient extent to allow its members to follow pursuits for which they are best qualified; and excellence in anything relating to our profession attained by any member should be regarded as to the common advantage of us all.

Our motto should be "*Homo sum, nihil humanum a me alienum puto*," and whilst our Association numbers among its members men of high mark both in literary and scientific attainments, let not those who follow more common-place, but not less useful pursuits, be despised. Our duties are so multifarious and diverse, that it is scarcely within the compass of any individual to achieve success in all; but this, instead of being a discouragement, should be an incentive to us to pursue our duty to the best of our abilities, and in the manner in which we are best qualified.

In a social point of view, too, isolated as we more or less are, often viewed with unfriendly eyes by the public, and criticised by hostile pens, there is the more necessity for unity amongst ourselves. Let there be no jealousy between us, whether we hold public appointments or are the more fortunate possessors of private asylums, but let each credit the other with the desire to relieve in some measure suffering humanity, and endeavour to maintain the "unity of spirit in the bond of peace." Thus we shall obtain for our Association the position to which it is entitled, to be the exponent of all matters relating to our specialty.

In the remarks which I have offered I am fully conscious of the too frequent repetition of the Ego; but, though sensible of the fault, I have been unable to correct it. The views I have laid before you are the result of my own reflections and are not the platform of any party, and if, whilst showing myself sensitive to criticism, I have appeared to criticise others, I beg you to believe that what I have said has been, as it seemed to me, in the interest of our common profession; and whatever of these views meet with your approval I ask you to accept as your own, enunciated, through me as your president, and whatever is unworthy of your support, to treat as the crude utterances of an individual.

Remarks on a Case of Syphilitic Insanity. By J. BATTY TUKE, M.D., F.R.C.P.E., F.R.S.E., Morisonian Lecturer on Insanity to the Royal College of Physicians, Edinburgh, Visiting Physician to Saughton Hall Private Asylum, Edinburgh.

(Read at the General Meeting of the Association, August 6th, 1874.)

The details of the case I now propose to speak of have been published in the January and July numbers of "The Journal of Mental Science" of this year. In the January number the clinical history was reported as far as it went; shortly after its publication the patient died, and in the July issue the further progress and termination of the case were given, and the result of the post-mortem examinations detailed. I will not now detain you by reading the full report, but in order to carry you with me it will be necessary to recapitulate the main features of the case, supplementing them by a few particulars which have been evolved by further study of the pathological appearances presented in microscopic sections.

B. A. belonged to a very healthy family in which there was not the slightest history of predisposition to nervous instability in any form. His age, when he first came under observation, was 52. He had been an acute man of business, and although a somewhat free liver, by no means a drunkard. No undue anxieties had pressed upon him; in a word, there were no so-called moral causes to account for the incidence of insanity. Six years previous to his coming under my care (*i.e.*, at the age of 46), he contracted an infecting chancre, which was followed by the usual secondary symptoms, during the persistence of which he suffered at intervals from melancholy, and from what the Germans call "paralysis of energy." About eight months after partial recovery from this condition, he fell down in the street unconscious. The nature of this fit I have not been able to determine definitely, but the strong probability is that it was epileptic in character, for well marked epilepsy supervened in a short time, followed by maniacal excitement. An immediate sequence of the first fit was that he became amnesically and heterophasically aphasic. It is impossible to fix with absolute accuracy the period of incidence of the next important feature of the case, *viz.* progressive muscular atrophy:—all I

can say is that when he came under my observation early in 1873, this condition was very well marked on the right side of the body, and on the *right side of the body only*, accompanied by considerable loss of power. The muscles of the right hand were much wasted, the thenar and hypothenar eminences were obliterated, the interosseous muscles were reduced in bulk, as were those of the right thigh, and in a less degree the muscles of the right fore-arm and the right leg. In walking he "hoisted" the right leg. Common sensibility appeared to be unaffected, but difficulties were experienced, in consequence of the aphasia, in determining this point definitely. The hearing of the right ear was defective. The aphasia was amnesic and heterophasic in character. Articulation was defective. Memory on all points was confused; talking soon excited him; he was restless and irritable; when in good temper he displayed a good deal of *bien etre*. Both pupils were persistently much contracted. I much regret that no ophthalmoscopic observations were made. Whilst under my care B. A. had several epileptic fits, at long and irregular intervals. In one, which was most carefully observed by my friend and late assistant, Dr. Joseph Brown, the epilepsy was almost unilateral: after a shrill scream, convulsion commenced in the right side of the face, it next extended to the right arm, and right leg; at its height the left side of the body was but slightly affected.* I saw the patient shortly after the convulsion had ceased, and observed most definitely that the right side of the body was pale and blanched, the left being of a normally florid colour. (The case was reported up to this point in the January number of the Journal, and the diagnosis expressed that it was one of Syphilitic Insanity).

In February of this year my patient died of apoplexy. The full details of this attack are given in the July number of our Journal, and present many interesting points for the consideration of the pathologist and physiologist. But as my desire to-day is to restrict ourselves to the collation of the epilepsy, the progressive muscular atrophy, the aphasia, the insanity, with the pathological evidences of syphilitic changes found in the brain and spinal cord, I will not dwell longer on the conclusion of the case; suffice it to say that the symptoms were such as to suggest the diagnosis of an apoplectic clot in

* The patient's medical attendant, under whose care he was prior to his being committed to mine, informs me that all the epileptic fits which he observed were unilateral in character.

the neighbourhood of, although not involving, the right corpus striatum.

The autopsy was performed twenty-four hours after death (weather cold). The following were the more important naked eye appearances:—Dura mater adherent and arachnoid slightly opalescent; small local atrophies in the neighbourhood of the intra-parietal fissure. Apoplectic clot in the centre of the occipital lobe of the right hemisphere about the size of a walnut; below its level, and on a level with the corpus striatum of the same side, an apoplectic clot was found, measuring from five to six inches in length, and about one and a quarter inches in breadth at its widest part, extending from about an inch from the tip of the frontal lobe to about the same distance from that of the occipital lobe, bounded on the left by the motor tract, which was not implicated. The two clots were unconnected. In the left hemisphere a yellow softening, irregularly round in shape, and about the size of a large walnut, was found impinging on the corpus striatum, involving the extra-ventricular nucleus and claustrum, and extending to within a few lines of the grey matter of the convolutions. The external arteries were much thickened. On the basilar artery large deposits of a yellowish colour existed. The middle cerebral artery in the fissure of Sylvius on both sides were seen to be nodulated and rendered moniliform by this deposit.

Microscopic examination of recent specimens showed thickening of the vascular coats, on which irregular swellings were seen, consisting of molecular matter. In the grey matter cells undergoing fuscous degeneration were observed in large numbers. The adductor pollicis was examined, and no indications of disease were noticed, the striæ being markedly distinct. Various portions of the brain and spinal cord were prepared in chromic acid; sections were made from these specimens, certain of which now stand on the table. In the frontal lobes the muscular coats of the arteries were considerably thickened, and the capillary walls well defined. In the ascending parietal convolutions at the vertex transverse sections of the arteries showed that the muscular and outer fibrous coats were much thickened; surrounding the latter coat were concentric rings of a material in which were held corpora amylacea; in some instances empty spaces existed between this material and the brain substance, in others this interspace was filled with a colloid looking substance. In many of the smaller arteries perfect occlusion

had taken place. Fuscous degeneration of the cells of the fourth and sixth layers were observed in degree between simple and slight deposit and complete destruction. In the occipital lobes and cerebellum the same lesions were noted in a slighter degree. In the corpora striata and in the cerebral convolutions most contiguous to them the diseased condition of the vessels was more thoroughly marked than in any other region. In some instances the muscular coat was found at least four times thicker than normal, and the concentric rings of new material extended from the $\frac{1}{80}$ th to $\frac{1}{150}$ th of an inch around the larger arteries. The smaller vessels were very generally completely occluded. Immense deposits of hæmatoidin were found immediately below the endyma ventriculorum and in the vascular canals. In the pons Varolii the vascular canals were in a state of extreme dilatation, resembling in a minor degree a preparation of Dr. Lockhart Clarke's, described by him in the *Medico-Chirurgical Transactions*, Vol. lvi., p. 106. In a section of the medulla oblongata immediately above the decussation of the pyramids, the cells in the course of the deep origin of the spinal accessory nerve were found reduced to fuscous masses. In the spinal cord the cells of the anterior vesicular column and those of the tractus intermedio-lateralis were seen bloated and swollen, their angles were obliterated, and their nuclei and nucleoli indistinct; they absorbed carmine but slightly; a few of those of the posterior column had undergone fuscous degeneration. In the posterior column large deposits of corpora amylacea existed, and the arteries on either side of the central canal were thickened. *In both cord and medulla the lesions were symmetrical.* The term bloated, as applied to the cells' appearance, is only applicable to their contour, for their greatest diameter was only the $\frac{1}{1000}$ th of an inch. In the posterior column large numbers of corpora amylacea $\frac{1}{2000}$ th of an inch in diameter existed. No evidence of syphilitic deposit was found in any other organ but the brain.

In this case we have presented a group of morbid nervous conditions, not only remarkable collectively, but which, when considered individually, are peculiar and anomalous: we have a man during the course of the secondary symptoms of syphilis undergoing intermittent changes in his psychical condition, and during the tertiary stages becoming the subject of epilepsy, amnesic aphasia, progressive muscular atrophy, impaired articulation, myosis, confirmed insanity with mental

symptoms not unlike those of general paresis, and, finally, apoplexy. This is the group of conditions, but these conditions are individually peculiar—thus we have unilateral epilepsy and unilateral progressive muscular atrophy, both in the same side of the body, and aphasia unconnected with any true paralysis. It is extremely difficult to know where and how to attack this case, but it appears to me that the best plan will be to consider the various indications of nervous degeneration in the order of their incidence, connecting them as far as possible with the morbid changes found after death, depending as little on hypothesis as possible, founding mainly on proved facts.

As has been already said, remittent melancholy and paralysis of energy were the first evidences of nervous degeneration; as they occurred during the secondary stage of syphilis it is probable that they were to some extent dependent on the anæmia, which is so generally present in that specific condition; but it is also probable that they were the result of commencing homologous changes in the tissues of the blood-vessels of the superior parts of the hemispherical ganglia. Microscopic dissection proved that the muscular and outer fibrous coats of the arteries of the various lobes were much hypertrophied, and that their calibre was thereby modified, a condition implying mechanical anæmia and loss of regulating power superadded to any actual modification in the character of the blood itself. That the psychical symptoms were remittent may be explained by improvement in the character of the blood due to medication and hygienic influences, and that the course of the cure showed a tendency to progressive deterioration of the nervous centres, by concomitant advance of the morbidity of the blood-vessels. We are taught by the highest authorities on syphilography that whereas homologous changes peculiarly characterise the secondary stage of syphilis, heterogenous morbidities are produced in the tertiary stage. Tracing this case through its clinical history we find at the period when the tertiary stage was approaching, or was approached, that an attack of an epileptic character occurred, followed closely by amnesic aphasia, deficient articulation, and unilateral progressive muscular atrophy. Microscopic dissection showed that the seat of the most thoroughly marked morbid changes was in the neighbourhood of the left corpus striatum, producing a softening, implicating its extra-ventricular nucleus and claustrum, and I hold it is a fair hypothesis that this locality was the one

which had been affected for the longest period, and, therefore, the spot to which we have a right to refer as the locus of lesion productive of the first epileptic attack. The specimens on the table show that heterogenous disease of the vessels is best marked in the immediate neighbourhood of diseased tracts, that the arteries are surrounded by extensive deposits, which, in the larger vessels, have modified the calibre, and, in the smaller ones, have produced complete occlusion. The fits occurred at long and irregular intervals, and their incidence may be ascribed to a gradual advance of the occluding disease, implicating by mechanical anæmia larger and larger portions of the motor tract. In support of this theory it may be fitting to remind you that the convulsions were unilateral. I found but little on the implication of the extra-ventricular nucleus and claustrum of the left corpus striatum in the production of amnesic aphasia; had the indication been ataxic aphasia, more might have been grounded on lesion of this part. I only regard the amnesia as indicative of a general degeneration of the grey matter of the convolutions, or, at the most, of some portion of it which was not definitely mapped out in this case.

But I would ask you to consider most carefully that, as far as the pathological investigations were prosecuted (and with all deference I may say they were not of a perfunctory character) the demonstration of lesions was shown to be bilateral, with the one exception of the softening of the left corpus striatum, its extra-ventricular nucleus and claustrum, and to collate with this the clinical fact that the two most prominent conditions, viz., epilepsy and progressive muscular atrophy, were unilateral. In the pons the cells and vessels were symmetrically affected. In the medulla the indications of disease were as distinct on one side as the other, and to the spinal cord the same observations extend.

As far as the unilateral convulsions are concerned, these pathological demonstrations do not present any points antagonistic to theories which have been advanced as to the causation of epilepsy; but the same cannot be said in regard to the progressive muscular atrophy. It may be in the power of some member to point to a fully recorded case of this condition in which the wasting was one-sided; such a one has not fallen under my observation, and although such a condition is cursorily alluded to by Hammond, it appears to be extremely rare. I need hardly remind you that a characteristic of this disease is, that atrophy of a set of muscles on one

side of the body is rapidly followed by wasting of the corresponding group on the other, and the inference drawn from this observation is that the affection of the trophic centres on one side of the cord extends after a short interval to those of the opposite side. But, in the case before us, we have a symmetrical condition of disease, as far as the cord is concerned, and an asymmetrical affection of the muscles. It may be objected that this was not a case of progressive muscular atrophy, inasmuch as that no lesion of the fibre could be detected on dissection. I would only refer any such objector to the clinical report published months before the patient's death, and challenge criticism of the diagnosis. I am not prepared to advance any theory as to the actual seat of trophesial lesion, contenting myself by recording the fact that there was an old standing softening in the left motor tract, with atrophy of the muscles of the right side of the body, and that in the medulla and cord, although morbid appearances were well marked, that they were bilateral in every respect. In a case of atrophic hemiplegia, which I recorded in the "*Journal of Anatomy and Physiology*" (vol. vii.), atrophy of the left side of the body was shown to be co-existent with hypertrophy of the right cerebral hemisphere. It may be fair, from consideration of these two cases, to suggest that the trophesial influence appears to be exercised by a nervous organ within the encephalon. It need not be necessarily inferred that this organ is in the neighbourhood of the motor tract, from the fact that in the present case a large lesion existed in that part of the brain, for, as is well known, circumscribed injuries affect the functions of tracts remote from them through the various systems of fibres which connect so intimately the various parts of the encephalon.

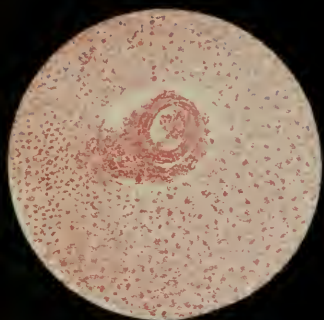
I will only refer to another of the difficulties presented by this case. It has been said that the cells in the course of the deep origin of the spinal accessory nerve were reduced to fuscous masses. This is not the first time that I have observed this lesion; quite lately I have found it in one case strongly resembling multiple cerebro-spinal sclerosis, and in another of old standing epilepsy; in none, however, has it been possible to connect it with any symptom observed during life.

This case, although it presents many other points of interest, might be dismissed at this point were it not that such a high authority as Dr. Samuel Wilks has lately, in the

"Journal of Mental Science" (April, 1874, p. 44), recorded his opinion that "if we refer to clinical experience and facts, the only cases of insanity connected with syphilis yet recorded are those where epileptiform symptoms, as well as temporary paralytic symptoms, proving the existence of an ordinary gummatous deposit, have, at the same time, been present. If this be true, we are not justified in admitting the existence of a disease which can, in correct pathological or clinical language, be styled syphilitic insanity; that is, there are not, as the term seems to convey to many persons, any morbid changes in the cerebral hemispheres attributable to syphilis. These cases also seem to show that the mania is quite independent of the epileptic attacks, and is not merely a phenomenon or precursor of them, unless indeed the mania might replace the epilepsy." I am free to confess that I have not, after careful and repeated perusal of the paper from which this quotation is taken, been able to follow the course of reasoning which permeates it. The arguments of Dr. Wilks appear to be founded more on our existing ignorance of cerebral pathology, than on what we have a reason to hope will be elucidated by work and study. It may be of doubtful propriety to term a case one of syphilitic insanity which is, or appears to be, dependent on the presence of an ordinary gummatous tumour; on the other hand, the presence of such a tumour points to the probable existence of more diffused morbid conditions, especially to lesions of the blood vessels. It is even more open to criticism to apply the term to those cases in which melancholy and paralysis of energy may be dependent on the anæmia of the secondary stage; but even this more assailable position may be defended by the assumption, founded on analogy, that the cerebral vessels are undergoing the homologous changes peculiar to the condition. Knowing, as we do, that such morbid conditions do accompany the secondary stage in many organs of the body, the *onus probandi* that they do not take place in the brain almost falls on the objector. But when we meet with a case such as that before us, I fail to see cause why it should not be absolutely styled one of Syphilitic Insanity. In it there was no definite and circumscribed tumour, the gummatous deposits being confined to the vascular walls, not only occluding the vessels and rendering them unfit for the conduction of the fluid, on the regular supply of which the activity of the brain depends, but, if we accept the statements of Boll, His, Obersteiner, and others as to the existence of perivascular lymphatics, produc-

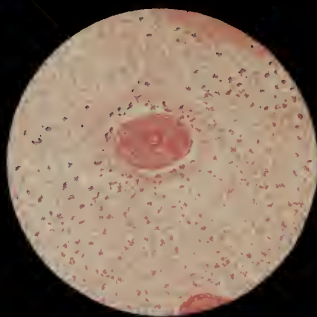
ing such changes as must have materially interfered with the return to the system of the products of waste and superabundant nutritive plasm. As a consequence, we have softenings, diseased cells, various morbid deposits and apoplexies, the result of the presence of which is affections of the various functions of the encephalon and spinal cord, motor, trophesial, and psychical. It may be said that the insanity was merely an accident in the case, and that the convulsive and trophesial abnormalities were the most important. But insanity was the first symptom of nerve degeneration on which these abnormalities supervened. There is under my care at present a case in which very similar psychical symptoms are present, following on the tertiary stage of syphilis, but in which there is no modification of motion or trophesis. Were this patient to die, and we were to find the same indications of syphilitic deposit on the vessels of the hemispherical ganglia and degeneration of their cells, would we not be entitled to designate it one of Syphilitic Insanity? There can be no objection to the periphrasis "insanity dependent on syphilis," in the same way as there could be none to "iritis dependent on syphilis," "rheumatism dependent on gonorrhœa," and scores of other diseases which are the results of special conditions of the system. The periphrasis implies, if it implies anything, that the insanity, iritis, or rheumatism would not have occurred if the patient had not contracted syphilis or gonorrhœa. But if to this assumption we can add the pathological fact that in a case of insanity dependent on syphilis a lesion of the vessels is present which has not been observed in any other etiological class of so called mental disease, we, I hold, have an absolute right to call the condition "Syphilitic Insanity." It is, perhaps, the only form of insanity in which a special lesion has been demonstrated, coinciding with those of other parts of the system under a similar condition. The descriptions and plates of *Cedmansson* and *Fränkel* indicate a similar condition of the vessels of the syphilitic placenta, and reference need only be made to the thickened and occluded arteries of many other organs of the body in tertiary syphilis. From a merely clinical point of view this case is strongly illustrative of the acute remark of *Dr. Buzzard*, that the complexity and diversity of nervous symptoms in one individual are strong presumptive evidences of a syphilitic causation. With all deference to such an eminent pathologist as *Dr. Wilks*, I cannot refrain from reiterating the opinion that the clinical history and *post-*

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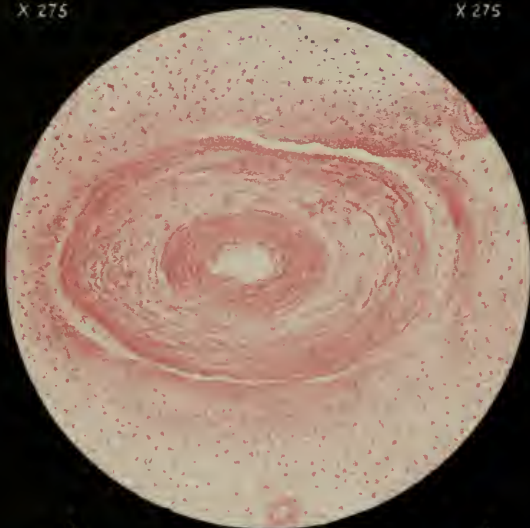
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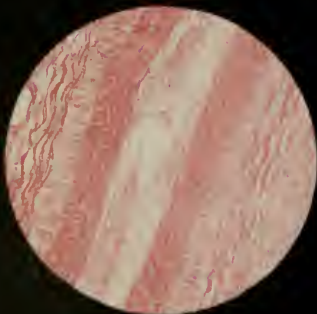
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mortem examination of this case warrants its being designated one of Syphilitic Insanity.

DESCRIPTION OF PLATE.

1. Section of large vessel, from white matter in the neighbourhood of the softening of the left corpus striatum, showing gummatous deposit and thickened coats. $\times 275$.
 2. Section of right ascending parietal convolution at vertex, showing commencement of deposit. $\times 275$.
 3. Occluded small arteries in same position. $\times 275$.
 4. Longitudinal section of vessel from same position. $\times 275$.
 5. Section from Pons Varolii, showing dilated condition of Vascular canals.
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The Hermit of Red-coat's Green. By DANIEL HACK TUKE, M.D., M.R.C.P.

(Read at the Annual General Meeting of the Medico-Psychological Association, August 6th, 1874.)

I wish to bring under the notice of the Association the case of a gentleman who some years ago became notorious through the graphic pen of Charles Dickens, and whose recent death has drawn fresh attention to his strange mode of life. Already nearly 10,000 copies of a biographical sketch of the hermit have been sold, and a brisk sale, I am informed, is still going on, while a large quantity of crockery, tea services, &c., representing his dwelling, have been sold. Being familiar with the residence of Lucas, the so-called Hermit of Red-Coat's Green, near Hitchin, and having visited him, I feel considerable interest in the question of his insanity (if indeed a medical psychologist could question it), and in the larger question whether, if insane, the character of the mental disorder in this and similar cases calls for any interference with the individual's liberty.

I shall in the first place give the prominent facts of his history, mainly obtained from private sources, and independently of the published accounts, which I find, on investigation, to contain mis-statements, and to omit many important particulars. I will then refer to the salient points for and against his insanity, and state my own conclusion, ending with a brief reference to the propriety of legal interference in such cases.

Mr. James Lucas, the fourth child of an opulent West India merchant, residing in London, and taking an active and able part in various public companies, was born in 1813. There were five other children, two of whom, a brother and

sister, survive. Their mother was a kindly, too indulgent woman.

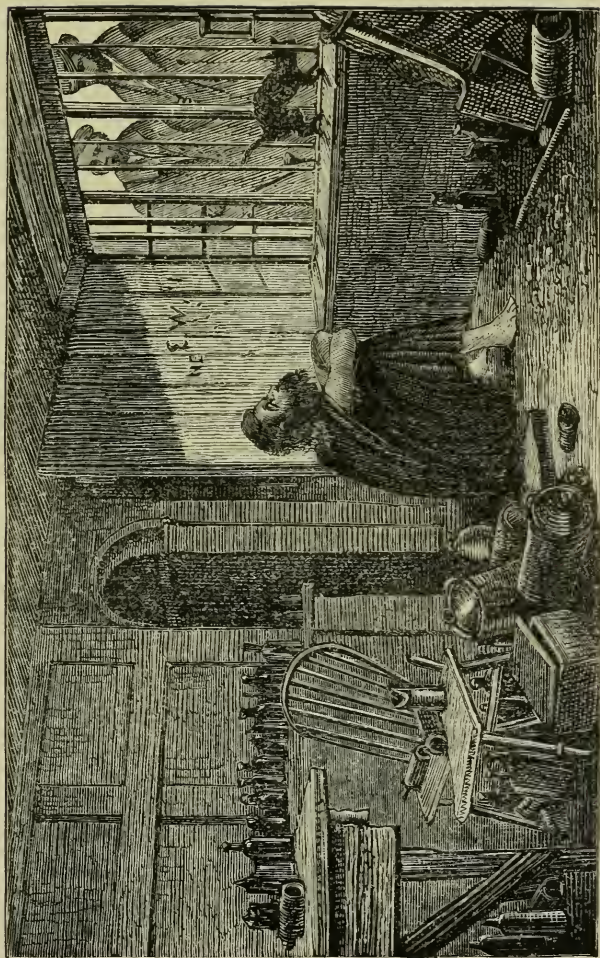
It is stated in the newspaper, and on inquiry I find it to be correct, that an aunt (the father's sister) was as eccentric as Lucas, and exhibited a like contempt for the ordinary decencies of civilized life. A gentleman (not a relative) informs me that he knew one of her brothers who was also very eccentric, though not in an asylum. Of the members of the previous generation I know nothing, except that his paternal grandfather was successful in making money.

When a boy, Lucas himself was considered healthy in mind and body. He was at that time, it is important to observe, very indulgently treated by both his father and his mother. He was in short a spoilt child, getting his own way in almost everything. I may observe here that of the patients admitted into the York Retreat, it is a striking fact how many were unduly indulged when children.

At seven, he was sent to a school at Clapham.

Three years afterwards, that is at the age of ten, he suffered from ringworm, his head was shaved, and a very strong ointment (I use the expression of a relative) was rubbed in. Now I wish specially to arrest your attention at this epoch in his life, because it was from this time that, in the opinion of his mother, his character underwent a change. To use his mother's expression "he was never quite the same after the ringworm was repelled." Even if a difference of opinion should arise (and there is certainly room for it)* as to whether the assigned cause is an adequate one, the fact remains, that a certain alteration in his moral character, marked chiefly by waywardness, temper, and untruthfulness, took place when he was ten years of age. On the adequacy of the cause, I particularly wish for an expression of your opinion. He ran away from school, but was sent back; finally leaving it when he was fourteen years old. I believe he was afterwards at a school at Richmond. He was then sent, with a view to moral restraint and discipline, to a medical man, Mr. Hicks, of Whitwell, but his stay was extremely short. This gentleman, who is still living, and distinctly remembers the lad, tells me that he regarded him as the victim of ill-judged indulgence and injudicious treatment. The chief characteristics at that time were

* Mr. Erasmus Wilson informs me that no case ever came to his knowledge of a mental affection resulting from local applications to the scalp. I find from Dr. Russell Reynolds that he has had patients suffering from disorder of the emotions consequent on the use of hair-dyes.



PORTRAIT OF THE HERMIT.

See Dr. Hack Tuke's Article, page 361.

“incorrigible perverseness and obstinacy, combined with a certain degree of cunning.” He received no medical history of the case, but was informed that when driven out for an airing to some Common or Green in the neighbourhood of London, and taken from the carriage to walk, he would stand still and shut his eyes. One day when Mr. Hicks was from home, and had left him in charge of his assistant, he eluded the vigilance of the latter, and “walked off.” Some of his relatives, to whom he went, declined to give him up, and Mr. Hicks did not hear of him again till Dickens unearthed him and made him famous.

His father subsequently placed him under a clergyman, but he never applied himself to study, and his character did not improve. Then he was at home, but his father was totally unable to manage him; he was self-willed, obstinate, and impatient of all restraint. When thwarted in any of his wishes he took offence, and would shut himself up in his bedroom, sulking there for days together; indeed, he seems to have spent a large portion of his time there. It is said, and I believe with truth, that “his meals were taken to him and left at his door, which he did not object to eat, but resolutely refused to return the plates. At length the plates and dishes became scarce in other parts of the household, as his bedroom contained nearly the whole supply in the way of crockery.”

It would seem that as a youth and young man, he was about as eccentric as he ever was in his life. He would dress by fits in the most opposite manner, sometimes having scarcely anything on, and at others wearing clothes of the best material, and appearing quite as a fop. His father removed into the country on account of his strange proceedings, but the son got into low company, and, if possible, less controllable, so it was thought better to return to town. He would not, I may here add, allow the cinders to be removed from the grate of his room, and the family were in frequent fear lest the house should be set on fire. On one occasion when his parents were from home, and his sister was left in charge, she became greatly alarmed, and they were hastily summoned home. About this time an attendant was employed, but Lucas objected to this so much that he was discharged. His father died in 1830, when Lucas was seventeen years of age.

At length his conduct became unbearable, and when he was about twenty, medical certificates were obtained, one

being signed by the late Dr. Sutherland, and he was obliged to have an attendant constantly in the house. This supervision lasted for two years, a fact which at any rate shows how his state of mind was regarded at that time by those qualified to judge. In fact, it only ended in consequence of his mother's intense dislike to his being restrained.

The mother survived her husband nineteen years, and the family resided at Red-coat's Green, near Hitchin, in the house in which the Hermit lived and died. He was on friendly terms with his brother at this time, but not subsequently, as will be seen.

He hunted occasionally in company with a gentleman in the neighbourhood. When he did so he rode either with his shirt outside, or in a nankeen suit, bare footed, and wearing a small cap, or bare-headed, his long, uncut hair streaming in the wind, presenting altogether a very remarkable appearance, the more so as he rode on a high peaked saddle, a string passing round him being fastened to the peaks in front and behind, and a rope for his bridle and his stirrups. One day his companion observed, "People stare at us very much; either you or I must look very strange. I leave you to say which it is." At other times he would ride in a carriage with his hair done up in curl papers. About this time he paid his addresses to a young lady in the neighbourhood, and sent her a fitting present, a pair of doves in a cage. No one can deny its appropriateness, but she was unfeeling enough to return the present. He persecuted her sadly, by haunting the grounds at night, and prowling around the house. We now come to his mother's death, in 1849, a younger brother being left executor, not James the eldest surviving son, now aged 36. One fatal objection (had there been no other) to his acting in this capacity, was that he would not attach his name to any deed or paper bearing her Majesty's stamp, the reason assigned being that she was not the rightful heir to the throne. Nothing would induce him to use either a postage or receipt stamp, lest he should seem to admit the Queen's supremacy. With curious inconsistency, he had no scruple against making use of the coin bearing her image!

Well, what was his conduct on the occasion of his mother's death? He kept her body in the house from the 24th of October, 1849, to the January of 1850. Each day he would say she might be buried to-morrow. He spent the greater part of the time beside the corpse. At last his brother, as

executor, interfered, and insisted upon the body being interred. It is said, in the published accounts, that he was so passionately fond of his mother that he was heart-broken at her death. Of the depth of his attachment to his mother before she died there is some doubt on the part of his relatives. During her life-time he used to express himself as much attached to her, but she would often say that although he was loud in his protestations of affection, and would alarm her by intimating that the hour of *her* death should be that of *his* death also, he never showed it by doing a single thing she wished. But with all this, there may have been real sorrow when he lost his mother, and a neighbouring farmer assures me that his distress was genuine, that he often said to him that he would willingly have died for her, and that he would weep bitterly when he mentioned her name. It would seem to be from this feeling that he allowed everything in the house to remain in precisely the same state as when his mother died, her letters and money untouched, and the beds in the rooms made as they had been a quarter of a century ago.

The life of Lucas as a hermit now began, but, however great his distress, we cannot, with some of the published statements, attribute his strange mode of life at Red-coat's Green to this cause. We have already seen his manner of life for many years previously, and his brother is of opinion that the only reason why he appeared to be worse from this time was because all restraint was removed. His mother was gone, his brothers and sisters could not possibly stay in the house. He never, I believe, saw his sisters from this time; and the interference of his brother about the interment provoked him, and occasioned an estrangement. He would speak in the bitterest terms of him, and give as a reason for allowing a hay-stack to remain untouched during his life time, that his brother would come down upon him for it—a perfectly groundless apprehension. Still his brother went to see him several times between 1849 and 1874, and was not refused admission. Further it is important to observe that a few years after his mother's death he made a will in which he in nowise evinced animosity to his brother, and moreover did not display any eccentricity or insanity in the disposition of his property.

Now for a quarter of a century after his mother's death, 1849 to 1874, Mr. Lucas continued to live in the same house, one which as you approached it told a tale respecting the

occupant. Every window and even the doors were carefully barricaded, and the house was allowed to go to rack and ruin ; so likewise was the garden—

“ The beds were all untouched by hand or tool ;
No footstep marked the damp and mossy gravel ;
Each walk as green as is the mantled pool,
For want of human travel.”

In the beautiful park-like meadow which surrounded the house stood a blasted oak—fit emblem of the blighted life of its owner. Another tree which had fallen across the garden walk had only been cleared away sufficiently to allow of a passage along the path leading to the house.

When I paid the hermit a visit some years ago, I went up to the window of what had been the kitchen, the glass and casement of which had long disappeared, the strong upright iron bars alone remaining. Here the possessor of ample means, and a man of at least fair education, lived day and night. He appeared to emerge from a bed of ashes (he had not slept in a bed for many years), and I observed that when his room was entered after his death, the floor was found to be a couple of feet or more deep with the cinders which had accumulated. A farmer informs me he removed after his death fourteen cart loads from the house and around it. On my appearing at the window he came forward, and entered (though with apparent reluctance) into conversation, his countenance being marked by an expression of suspicion. His aspect was quite in keeping with his abode. Unwashed for many years, his skin was not in a desirable condition, the white of his eyes contrasting strangely with the rest of his person. Clothes he had none ; only a dirty blanket loosely thrown over him. For long his hair had been a stranger to the scissors or razor, and its profusion might have been magnificent, but that it was matted with dirt. The photograph of a sketch which was made of him as he sometimes appeared at the window, will convey a clearer idea of his appearance than any description I can give. He was about five feet six inches in height, rather muscular, his hair and eyes dark, the latter prominent, and his complexion pale. His forehead appeared to be well developed. In the room were a fire, an old table, and numerous bottles. There was also a chair, and I understand that a basket was suspended from the ceiling in which he kept his food to protect it from the rats which abounded in his establishment. You will remember

that Dickens says he saw one run across his face as he lay asleep.

He spoke to me in a low, rather plaintive tone of voice, and gave me the impression that he was labouring under a certain amount of fear or apprehension. Part of his conversation, which otherwise was perfectly rational, conveyed the same impression. He intimated that his relations were against him, and I understood him to give this as a reason why his house was barricaded. So far as I could make out through his prison-like bars he was labouring under a partial insanity—a monomania of suspicion or persecution. I should, however, state that his brother informs me that whatever might have been his reason for barricading his house subsequently, some of the panes of glass were actually broken by stones at the time of the Papal Aggression in 1850, in consequence of his showing a leaning to Roman Catholicism, and that it was then that bars of wood were nailed across the windows.

Several of his visitors agree in the statement that he assured them his relatives, especially his brother, were plotting against him, and they think his feeling was real. I may here mention that he never wrote a letter to any member of the family, nor, indeed, to anyone else. The only writing I know of was executed when he wrote a cheque. He had a cheque book, and used it for the payment of some of his bills. From time to time, when he required money for his own use, his bankers would receive a verbal message, and a clerk would go over to his house and transact business with him. The cheque was always very correctly written, and the counterfoil duly filled in. I have seen his last cheque, dated Ap. 14, 1874, the signature, unlike previous ones, being rather shaky. In consequence of his refusal to sign his name to any paper bearing a stamp, the receipt stamp had to be added afterwards. From the same cause the dividend warrants which came to him were not cashed, and remained in his house, forming a large accumulation of very dirty papers. Some three or four years ago he was induced to sign a form authorising his bankers to receive the dividends for him, and in this way he surmounted his scruple to recognise the Queen.

Some years ago landed property of his was required for public purposes at Liverpool, but he would be no party to its sale on account of its involving a stamp. The compulsory clauses of the Liverpool Improvement Act were, therefore,

put in force, the land was sold, and the proceeds placed in the Bank of England. There the money lay idle to the day of his death, since drawing it out would have required a stamped receipt. In connection with this, a curious proof of his desire to have it and of his shrewdness has come to my knowledge. My informant had a relative in the law who was solicitor to the Suitors' Fund, and Lucas by some means had found out that he was thereby connected with the Court of Chancery. Being in conversation with him, one day, he suggested that this solicitor should file a petition in Chancery and obtain for him what he would not apply for himself. His visitor replied that of course if this were done the Court would institute an inquiry into the condition of the party to whom the money belonged. "What!" asked Lucas, alarmed, "do you mean *de lunatico*?" The affirmative reply was a complete poser, and the scheme at once collapsed.

Lucas was not by any means a miser. He was visited by swarms of tramps, to whom he gave a great deal away in coppers, as well as gin, giving always more to a Roman Catholic than a Protestant. It is said that on last Good Friday he doled out sweetmeats, coppers, and gin and water (which he always kept in large quantities by him) to two hundred children. For some years he gave a poor old woman in the neighbourhood four shillings a week.

Lucas's own diet was very simple, though he did not starve himself. He ate bread and cheese and red herrings, and drank both milk and gin. He had not, however, taken milk for some time, as he suspected—and this, of course, is an important feature of his case—that poison had been put into it. At one time he charged a farmer, who supplied him with eggs, with having put poison into them—and when the latter remarked that this would be rather a difficult thing to do, he said he must have given *the old hen* some poison! He was not in the *habit* of taking too much gin, but was occasionally drunk, and there is reason to suppose he drank largely of gin the evening before his death, after feeling much depressed. His fear of poison frequently led him to change his baker, and he carefully selected a loaf. In his room was found nearly a cartload of hard unused loaves which it is supposed he suspected of containing poison, and durst not use. (They were afterwards soaked in water and given by a farmer to his chickens!)

Mr. Lucas died of apoplexy at the age of 61, on the 19th April last. A gentleman who saw him a week before his

death informs me that he appeared in usual health, and in fact very lively and communicative. He behaved most politely, and did not betray any unfriendly spirit or delusion in regard to his friends. He spoke of nervousness, and of being highly nervous himself, and low spirited sometimes. My informant is subject to asthma, and he spoke very intelligently of its symptoms and various causes. He remembered distinctly the number of years (seven) which had elapsed since he had seen him, and the subject of the conversation, which the visitor had quite forgotten. To some, however, he complained of his memory failing him, and a gentleman noticed, not long since, that in using a Greek word—for he had not forgotten his Greek and Latin altogether—he could not remember the whole of it, and, contrary to his custom, would be at a loss for a word. The fact above mentioned of his being sometimes low spirited is confirmed by one who frequently visited him, and spent hours in his den. He tells me he would cry like a child and bemoan his desolate condition, always attributing it to the unkindness of his brother, which I know to be entirely false. At other times, if contradicted, he would fly into a passion, swear, and act so violently that his visitor was glad to get out of the house. He quarrelled with him because a medical man happened to call when he was there, and he suspected they had a design upon him.

Such was his history.

That there was no imbecility of mind may at once be granted; that his conversation was not only coherent, but sensible; that he was sufficiently shrewd and wide awake in the ordinary transactions of his limited life, and fully understood the value of money; that his memory was remarkably retentive;* that most of his visitors did not detect any sign of madness—are facts which cannot be disputed; and it may be a question whether any jury would have found him insane. Some years ago (1853) the attention of the Commissioners was directed to his case, and they were requested to take some action. They consequently summoned his brother and a neighbour to give evidence, but their conclusion was that there was not sufficient evidence of his insanity to

* One of his visitors, a travelled man, was surprised to find that Lucas had so much acquaintance with the various localities which turned up in conversation. His knowledge of Shakspeare and of the literature of the Restoration was very considerable. A medical man informs me that in conversing with him about the classics he displayed much intelligence.

allow of their interference. Again, it is stated in the papers that Mr. Forster "paid the Hermit a visit last year, and was struck with his being singularly acute, and without the least trace of aberration of intellect. In the course of conversation with this gentleman, he said, 'You may think it strange my living like this. So do I, sometimes, but it is not done without a reason.'"

Nor could Mr. Forster's friend, Dickens, recognize the signs of madness in his behaviour. I must think that in this instance the kindly nature of the novelist strangely forsook him. (The truth no doubt is that he mistook the nature of the case, and hurled his stinging sarcasm at what, had he not made the mistake, would have been fair game enough.) Mopes, as Dickens calls Lucas in "*Tom Tiddler's Ground*," was, in his view, a Hermit; the definition of this word being "an abominably dirty thing." The house was, according to him, "the homestead of a sluggard," and is characterized as "the shameful place." The occupant is "intolerably conceited"—"a slothful, unsavoury, nasty reversal of the laws of human nature, and for the sake of God's working world and its wholesomeness, both moral and physical, I would put the thing on the treadmill (if I had my way), wherever I found it." Addressing the Hermit, Mr. Dickens, in the character of a traveller, says, "What is a man in your obscene state of dilapidation but a nuisance?"

But it would occupy too much time to give more of the exasperating banter with which the traveller insults Tom Tiddler, alias Mr. Mopes, all no doubt very cleverly done, and richly deserved on the hypothesis of his sanity.

On the other hand there is the family history, pointing as it does to hereditary predisposition, only wanting some exciting cause to arouse it; the change of character at ten, associated with an alleged physical cause; the action, as a moral cause, of an injuriously indulgent bringing up; there is subsequent to the age of ten the constant waywardness and obstinate wilfulness, in a word wrong-headedness, combined with untruthfulness; the acts which occasioned frequent alarm to his family; the necessity at length of legal restraint; the freaks of dress and no dress; the extraordinary conduct pursued by him on and after the death of his mother; the persistent notion, if we may not say delusion, respecting the Queen, involving the loss of considerable property; the entire neglect of his dwelling and his person; the groundless suspicion and antipathy he felt towards his brother; the

delusion that poison was put into his food by those who supplied him; his fits of mental depression; and his violent passion on the slightest contradiction. These characteristics of his mental history, so familiar to us in many of their symptoms in asylum life, and so easily conceivable in others, if certain cases of insanity we have known had been allowed to develope themselves and flourish, unchecked by the wholesome restrictions of medical supervision—these characteristics I say, will I doubt not satisfy you that the condition of the Hermit of Red-Coat's Green did really pass beyond the limit of eccentricity; that his emotions were perverted by disease; but that while his case was primarily one of Moral Insanity—a madness of action rather than of language—a state of degraded feeling rather than intellectual incapacity—his suspicions at times took the form of a definite delusion, which our legal friends, in search of their favourite test, ought to admit to possess some weight; and here I would add that it should be carefully borne in mind that his isolation and seclusion, and neglect of his residence and dress, did not arise from the preoccupation of his thoughts in any absorbing pursuit. He was not even an alchemist. It arose from his diseased mental condition, and the solution of the problem of his life can only be found *by tracing back his history to the unfavourable circumstances of his childhood, acting upon a brain in all probability predisposed to mental disease.*

I conclude this sketch by briefly referring to the question which must present itself in such cases as this, namely, whether a man who thus acts and lives ought or ought not to be interfered with? I am, of course, well aware that this could not be done merely on the ground of the neglect of his property or his mode of life, seeing that our law, unlike the Code Napoléon, and that of ancient Rome, allows unthrifths and wasters of property to do as they like. But assuming that the proofs of his insanity were conclusive, would it or would it not have been desirable to place him under care? He was not dangerous to others, nor was he dangerous to himself, except in a very general sense, but might he not have been benefited, and been really more comfortable, if under medical treatment and control? And meeting, as I think his case did, the requirement of the law that “there must be something which affords demonstrative proof of the incapacity of the individual to be trusted with the management of himself and his own concerns,” it certainly would have

saved a great deal of trouble and much loss of property had he been under the protection of the Lord Chancellor and the inspection of his Visitors. I submit that such control would have been better for the neighbourhood, better for his family, and better for the Hermit of Red-Coat's Green himself.

Some Observations on Different Forms of Stupor, and on its occurrence after Acute Mania in Females. By H. HAYES NEWINGTON, Senior-Assistant Physician to the Royal Edinburgh Asylum.

With the exception of the condition of a person labouring under acute mania, no phase of insanity so thoroughly arrests the attention of even an uneducated observer as that which has been styled stupor in late years. Painful as it is to see the vagaries and extravagances of the former, hardly less so is it to contemplate in the latter the great impairment of mental power, which may reach even to almost total obliteration. But while on the one hand acute mania has been elaborately described from every point of view—indeed, the very nature of its symptoms force a recognition, and demand prompt treatment—yet stupor has received but little attention, considering what an important element it may become in a case. In fact, it is only comparatively recently that it has been looked upon as anything more than mere “depression.” For more than a casual mention of it, we must chiefly refer to French psychological literature, to the writings of such men as Baillarger, Esquirol, Brierre de Boismont, Dagonet, etc. But these authorities differ much in their opinions, even as to the fundamental nature or natures of the sets of mental phenomena which are included under this comprehensive term.

Not many years ago the condition in all its phases appears to have been regarded as possessing only one mode of origin, however much its manifestations may have varied in different cases. Our forefathers would seem to have looked upon it as a semi-physiological complication so to speak, which might naturally be expected to ensue after a morbid over-exercise of the functions of the sensorium commune. This view not being found satisfactory or exact enough as the study of morbid psychology became more scientific, much contention arose, firstly as to whether the condition had a single origin (that

origin having in the meantime been traced farther than mere "depression"); and secondly, as to whether if duality of origin were admitted, stupor was to be regarded as a complication only of other forms of mental disease, or was to be classed as a separate and independent malady.

It is now recognised by most authors that stupor may result both from an inhibition of the functions of the higher nervous centres on the one hand, and also from the intervention of some fearful and terrifying delusion on the other—that is to say, a double origin is allowed. It cannot be denied, again, that it may occur both as an original disease and as a complication. When a delusion intervenes it is of course only a complication, but when it results from inhibition of action it may be both a primary alienation as well as a complication.

Esquirol seems to have been the first to have given a specific name—Acute Dementia*—to a malady of which it is the primary and paramount feature, but he also fully admits the occurrence of stupor in cases of extreme melancholia.

Baillarger, and after him Griesinger, on the other hand seem to claim nearly every case of the kind for his own well-known class of *Melancholia avec Stupeur*. These two writers especially consider that Esquirol and Etoc-Demazy have classed erroneously some of their cases. But both admit the occurrence, though very rare, of acute dementia. M. Dagonet in an exhaustive essay on stupeur† is broader in his views on this subject than Baillarger. He is prepared at once to recognise Baillarger's views in some cases, but he also considers that there are many cases in which delusions have nothing to do with determining the stupor. He also is of opinion that the difference between the authors he cites is "*au fond plus apparente que réelle ; tous admettent en effet la suspension plus ou moins complète des actes intellectuelles chez un certain nombres de malades.*"

A great deal of this diversity of opinion and uncertainty

* This name has been objected to for various reasons, *e.g.*, that Dementia is essentially incurable, that the condition is not Dementia, etc. There seems to me to be a close analogy between Esquirol's work in this department and Bright's in Renal disease. In both organs experience shows that there may occur—1st, an acute form of disease with a favourable prognosis, and leaving no immediately apparent mischief behind; and 2nd, a chronic form leaving no hope for cure. And in Dementia, besides, as in kidney disease, there seems a probability that both the acute and chronic forms may have a similar mode of origin, but that the acute form, being a primary disease, and having generally a rapid invasion, lights on a comparatively healthy organ, which, with appropriate treatment, is able to throw it off again; while in the chronic form there is no power of recuperation, and matters can but go from bad to worse.

† "*Annales Med. Psychol.*," 1872.

seems to me to be due firstly to confusion of terms applied, and secondly to the amount of chance or luck in obtaining the respective number of cases which furnished the means of description to the various writers.

Acute dementia and extreme melancholia afford us the two different types of stupor. In the first disease it is, as I have said, the paramount feature, but it must be recollected that it is not the disease itself. A perfectly identical condition, though not so prolonged, may constantly be seen after an epileptic attack of an insane person. We also may, I think, see it in a nascent stage in sane people after any occurrence that produces great exhaustion, such as hard mental work, prolonged or acute illness, dissipation, etc.

Acute dementia invariably presupposes one form of stupor, but this class of stupor, on the contrary, does not always presuppose acute dementia. The latter name, though its occasional use is necessary to mark the type, must be got rid of while discussing stupor. Instead, some name is wanting that will as clearly show the etiology of this form; the use of the term *delusional* before the word stupor will denote that of the other form. Each one of the authors I have quoted considers that the *non-delusional* class exhibits an "obliteration," or "abolition," or "suspension," or "veiling," etc., of the function. It is essentially not a question of over-work, or perverted work, on the part of the nervous centres; it is simply a case of no work at all. I therefore would suggest the use of the adjective "anergic," (*ἀ* without *ἔργον*, an action or duty), the title of course referring not to the patient *in toto*, but to his brain cells. We thus get two decided terms wherewith to grasp and separate the two forms, "anergic stupor" on the one hand, "delusional stupor" on the other. I shall make use of them in the remainder of this paper.

The following table shows, I think, most of the conditions in which stupor of either kind may be found:—

ANERGIC STUPOR.

1. Primary—
(Acute Dementia) generally caused by a sudden and intense shock.
2. Secondary—
 - a. To convulsions of any kind.
 - b. To mania in women (see second portion of this paper).
 - c. To any other prolonged nervous exhaustion.

DELUSIONAL STUPOR.

Result of intense (1) Melancholia, and may be intercurrent in (2) General Paralysis, and also supervenes on (3) an epileptic seizure.

I shall here cite typical cases of each kind. 1st, Anergic Stupor.

CASE I.—M. G., the wife of a shepherd, admitted July 22, 1873. First attack. It is stated that no other member of the family has been insane. Shortly before admission she was married, and her insanity seems to have arisen from the fact that coition was found to be impossible on account of some structural malformation on her part. Her husband, it is said, was unkind enough not only to inform his acquaintances of the fact, but also expressed his opinion that she was neither a man nor a woman. This preyed much on her mind, and she was brought to the Royal Infirmary, Edinburgh. It was then found that she had an imperforate hymen, which was successfully treated, and thereupon she was sent to Morningside. On admission she presented the appearances noted in the following table of symptoms. After some weeks she commenced to ameliorate rapidly on a treatment of tonics and ale. The course of her convalescence was in this wise. She became cleaner in her habits, and if work were put in her hands, she could manage to do a little when constantly looked after. She soon began to menstruate, and then became quite brisk, working hard and voluntarily. But as yet she did not speak, unless it were to say "yes" or "no." She eventually got back her speech, and recovered entirely, menstruating again before leaving. On her discharge, four months after admission, she informed me that she could remember nothing that had occurred during her illness, though her memory for facts happening before seemed to be good.

CASE II. Delusional Stupor.—A. M., æt. 25; admitted April 2nd, 1874. First attack. Very marked family history. Paternal grandmother was liable to occasional attacks of insanity. Her father was also a patient in Morningside for some months, about 1858. He laboured under melancholia, and had many gloomy delusions. He was discharged relieved. The present patient had been very industrious, but always of a reserved disposition. The exciting cause was supposed to be a love disappointment. She became at first wandering and restless, and suffered greatly from sleeplessness. Then she laboured under deep despondence, saying that her soul was lost. She talked casually of suicide. On the 14th day of actual insanity she was admitted, having refused all food for the preceding 48 hours. Her brother reported a fixed delusion that her soul was lost, and since admission she has expressed a strong wish that she were dead. The following is the state on admission:—Very great depression, as shown by her expression, moaning and crying. Apparently slight enfeeblement. Memory, coherence, and the existence of delusions could not be tested, as she would not answer questions. She was of cachectic appearance. Muscularity and fatness poor. No apparent abnormality in the motor or reflex system, or in the special senses. Pupils contracted and equal. Fluttering and harsh respiration at the apex of both lungs, especially the left. Heart very weak, no murmur. Tongue moist, slightly furred. Pulse 80. Temperature 97·6. As she continued to refuse food, the nose tube was had recourse to, but with little

success, and eventually the stomach pump was used, and she was fed off and on some fifty times.*

After this had been going on for some weeks she got much worse, habits dirty, lying down for a short time, but often kneeling with the head on the floor as long as she was allowed to, and directly she was left alone she resumed this position. Her face was most woe-begone; in fact, at times she presented a most painful spectacle of mental distress. At the present time she is still here getting worse and worse. On one or two occasions she has started up suddenly, and broken a window, or used violence to her attendants. She takes her food well, often ravenously, and is reported by the night attendant to sleep well. She has not menstruated since admission.

This case presents to my mind nearly all the leading symptoms of delusional stupor, and the symptoms are here all that one has to go upon to make the diagnosis of that condition. At first she expressed delusions of a gloomy nature, after that she did not speak at all, but presented marked evidence of being possessed by such delusion. What is wanting is a declaration from the patient herself to the same effect; this she is not in a position to give. However, in the following case this desirable information has been obtained from the patient, and many such are on record, especially in the "*Annales Medico-Psychologiques*" (Bailarger, 1843, 1853—Dagonet, 1872).

CASE III.—J. S., æt. 18, admitted May 12, 1874. First attack. Heredity well marked. Grandmother insane; uncle committed suicide; numerous other members of the family "nervous;" a sister epileptic. Exciting cause, over-work and religious anxiety. Symptoms

* It was a matter of great difficulty at first to open this patient's mouth with the usual steel expanding gag. In addition to violent resistance it was found that she could make her upper jaw so overhang the lower that nothing but the gum of the latter was visible; and again the left condyle of the lower jaw had a tendency to subluxation. (Sir A. Cooper describes a subluxation occurring in young and delicate women, in which the bone returns by itself, as it did on one occasion in this case.) Having noticed that when the nose tube was used, the patient used to collect some spoonfuls of nutriment in her mouth and then spit it out, I hit on the plan of first introducing it, and then lying in wait with the gag at the *ἑρκος ὀδόντων*. She was taken in the first time, but when she had to be fed again she recognised the trick. However, she was in the dilemma of either swallowing by the nose tube (which is the best thing when practicable) or of opening her mouth sufficiently wide to admit of the gag being introduced. Many drugs were introduced with the food, *e. g.*, quinine, opium, tincture of capsicum, and a combination of the last two. None of them seemed to have any effect.

before admission: delusion that the Day of Judgment had come, refusal of food, attempt to throw himself out of the window. Medical certificates show that he was excited, incoherent, that he says that he takes port wine to be saved, that he is lost, that in his incoherence the word "sacrament" often occurs. On admission he was found to labour under great depression and some enfeeblement; memory impaired; incoherent; no delusions expressed; marked exhaustion; general bodily condition very weak; aortic murmur; pulse 120, very weak; temp. 97·8; tongue much furred; slept badly, and took but little food. Pneumonia of the left lung set in, but was not very severe, but was sufficiently so to account for a considerable amount of mental enfeeblement. He improved very slowly, and a few days ago the following is noted in the Case-book:—"Patient is up and able to be out in the garden. He answers questions slowly, and appears to have to think some time before being able to give an answer. States that during his illness he was conscious of what was going on around him; but that he fancied murderers were about him, that there were snakes in his bed, and that these ideas controlled his behaviour and actions. Says that he felt miserable during all this time." He is still under tonic treatment.

A consideration of these cases will, I think, show an additional, and perhaps the most important, cause of the confusion that I have before mentioned as existing in the differentiation of the forms of stupor. We can set aside Case I., as it seems to be a straightforward one. But in both of the other two, though delusions evidently governed the stupor, yet there can be no doubt that the intensity of the delusion produced a considerable amount of anergia, by acting on a congenitally weak mind, which was still further weakened by existing insanity, the original "delusional" form being, as it were, masked by the anergic form. This result was brought about at some interval in Case II., but was quick in its appearance in case III., where general cachexia, and after that pneumonia, were noticed. It is easy to conceive that anyone might be led into error who had not been able to follow the whole case, and who had instead to form his judgment on the "present" state of the patient. And it is not to be forgotten that, as in a case of any disease, symptoms may be wanting, or even entirely contradictory to what might have been expected. It is not always easy when a patient complains of having "raised blood" to detect its source, though the rules for its discovery are laid down hard and sharp enough. So in the instance of what I am endeavouring to describe—utter absence of response to external influences—symptoms may not always be found individually to coincide

with the direction that the majority point out. Nevertheless, I have made the following table of differences, which on some points is great and constant enough to enable one almost to come to a certain opinion.

ANERGIC.
(Acute Dementia type.)

Hered. Predisposition.—Very marked; but beyond this there seems to be an individual liability, which will allow a more or less sudden and complete loss of *vis nervosa*.

Exciting Causes.—See preceding table.

Invasion generally very rapid.

Symptoms.—Intellect evidently greatly impaired.

Memory.—Seems to be swept away as far as is possible.

Emotional Capacity.—Nil, or almost so. Eyes are often suffused with tears, but this seems to be due to derangement of the lachrymal apparatus, and is, I think, additional evidence of anergia. Features relaxed, eye vacant, and is not constantly fixed.

Volition.—Almost absent.

Motor System.—Weak and uncertain. The patient has to be led about, and if placed on a seat or in a position does not move. (Cataleptoid condition of Dr. Monro.)

Sensory System } Both dull.
Iteflexæ „ }

Pupils—dilated.

Sleep—generally good.

General Bodily Condition.—Emaciation sometimes extreme; when so it generally appears rapidly, and disappears equally so; but often times there is not very great loss of substance, though the whole tone is much lowered.

DELUSIONAL.
(Melancholic type.)

Very marked.

More deliberate, but may be almost instantaneous.

No oral evidence will be likely to be obtained on this point; but the conduct of the patient shows often considerable reasoning power, *e. g.*, the means of attempted suicide.

Generally found after recovery to have been preserved to a great extent.

There is evidence of grief, fear, etc., in the facile expression—wringing or clasping of the hands. It is very rare to find tears shed. Great contraction of the features. Eyes fixed on one point, usually upwards or downwards, or else obstinately closed.

Frequently great stubbornness, refusal to do what is wanted. And on the other intense determination in following out the patient's own plan.

But little interfered with, independently of sheer asthenia, produced by the patient's conduct. A patient will for hours or days stand behind a door, or kneel in a constrained position on a bare floor.

Do. There seems to be a much greater ability to bear very severe pain.

Generally tending to contraction.

Intense sleeplessness.

Is affected *pari passu* with mental state, and seems to be governed by it to a great extent.

ANERGIC.

Vascular System.—Pulse very slow, almost, sometimes quite, imperceptible. Cyanotic appearance, œdema and iciness of the extremities. Great decrease of vitality in peripheral structures, as shown by tendency to asthenic eruptions, and production of vermin.

Digestive System.—Tongue clean, or if furred it is moist. Appetite *apathetic*; bowels not very irregular, but habits very dirty.

DELUSIONAL.

Pulse very weak, and often quick and thready. Complexion anæmic and sallow. The other appearances may be present, but come on later, and are less marked.

Tongue very dry, small and furred, Refusal of food. Great constipation. Dirtiness of habits rare.

It will be noticed that on nearly every point of the symptomatology of these two forms there is, as I have said before, more or less difference. If the observations of others convince them as strongly as my own have me—if, in a word, this difference is established—it follows that there must be a fundamental difference also between the two conditions themselves; and I think that this difference may be summed up thus: On the one hand there is to be found more or less complete *absence* of cerebration—the more complete the absence the more marked the symptoms; on the other the abnormal *presence* of intense but perverted cerebration is the agent—the more intense it is the more profound are its results.

A few of the symptoms themselves are worth a little discussion. The *invasion* of anergic stupor may be said to be rapid in almost every case. The history of these cases generally informs us that the patient has, as it were, been “struck” by the infirmity. In many observations on record a few seconds only have sufficed to have turned sanity into insanity. Its rapidity of seizure does not much influence the prognosis of the attack; while on the one hand it might be argued that but little good might be expected of a brain that is so easily and suddenly put off its balance, it may be advanced on the other, that as in the more purely physical maladies, the quicker that a disease seizes on what was previously healthy, the greater is the resistance to it, and the better the chance of recuperation. As a rule, the more sudden and active the exciting cause is, the quicker will the invasion be, but even when the exciting cause has been, so to speak, spread over a considerable period of time, the inhibition of function is soon established. In fact, this form does not grow, it does not feed on itself, the fall is abrupt. In delusional stupor, as a rule, some time elapses after seizure before a full height is reached, and its steps can be recognised with certainty, but in some cases the invasion is

almost as rapid as in the preceding form. When such is the case, I think a modification of some of the symptoms may be found. The current of perversion of intellect, though marked, does not seem so strong. The features may betoken at times most intense mental suffering, but there are periods of relaxation. It seems as if the suddenness of the shock has deprived the intellect of the power of continuously fixing itself on the governing delusion. In these cases, too, the general bodily condition seems to suffer more.

The preservation or loss of *memory* is a most important point. It is a most wonderful fact that this faculty, which in itself is one of the first functions impaired in so many forms of insanity, should be preserved fairly even during a period when perhaps few other signs of psychical life can be discovered. Yet so it is, and in my opinion the fact of its existence, or the contrary, constitutes the first and sole legitimate reason for separating the two forms of disease, in place of their being considered as varieties of the one and the same; of course the best test of its not having been abolished is a conversation with a recovered patient. It needs but little skill to compare a patient's statements with actual occurrences, provided that he owns to remembering things that occurred during his illness, but no such positive proof can be obtained in cases where no recollection is manifested. It might be said that a patient's word was not to be trusted, that he was intentionally misleading his examiner. This would be at once disproved by the cases which are recorded in the second portion of the paper. These patients remembered and correctly described events occurring in the maniacal stage which preceded the anergic stupor, but had no recollection of anything that happened after it had set in. There would have been as much motive to deceive about the one stage as the other. Again, it might be said that it was possible that memory was alive during the stupor, that the mind had the power of connecting the present with the past, without the patient's being conscious when convalescent that that power had existed. However, it would be hard to conceive the possibility of the brain storing away facts while labouring under disease, and not being able to evolve them again when health had returned. Additional strength can be given to this idea by considering what occurs in the mind of a man who has been drinking up to a certain stage. We hear him, perhaps, originate the most brilliant remarks, or string together most ingenious argu-

ments. Stop him, and ask him to retrace the steps of his argument, and he will find great difficulty in doing it, or even not be able to at all. He has then lost the power of recalling what has been said. To carry out the analogy, ask him next morning, when he has recovered his normal brain power, to recount what he said. His memory is completely gone touching that period, but he will most likely remember fairly what occurred before alcohol had produced its effects. I think, therefore, that if, setting aside intentional misrepresentation, a patient say that he cannot remember what occurred during his attack, we may take it for granted that no continuous delusion existed, for this latter could not exist without memory being called into action.

We may also find other signs of the presence of memory in the conduct of patients themselves. A. M., Case II., plainly recognized what was the meaning of the various preparations for feeding her by the stomach pump.

Cleanliness of habits is also a symptom worth looking after. It is rare for a purely melancholic person to be dirty, unless he be suffering under some great bodily weakness as well. It not only helps in forming a diagnosis between the two conditions, but uncleanness occurring in a case of delusional stupor indicates pretty surely the supervention of more or less anergia.

It is my intention only to refer at the present time to one of the other conditions in which stupor is found to exist, viz., the form of the anergic type following acute mania (in females).

M. Dagonet (op. cit., p. 370) details three relations between stupor and mania. 1. Stupor succeeding mania. 2. Alternating with. 3. Preceding. It is with the first only that we have to do here. He recites five cases, all male. The first two were removed from his care before they were cured, and there is not evidence enough supplied in the account of their cases to enable one to form a judgment as to the existence or not of a terrifying delusion. About the other three there is no doubt. The patients' confessions show that they were weighed down by threatening voices, etc. It is my object to describe now the supervention of anergic stupor on acute mania. Observation and inquiries lead me to believe that sex plays a very important part in determining the nature of the stupor. I believe anergic stupor only follows acute mania in female cases, or that if it ever does occur in the male it is robbed of so many of its essential characteristics,

that it should be regarded merely as the rest that is sent to remedy the effects of the preceding excitement.

The following cases have lately come under my observation :—

CASE IV.—A. B., female, admitted Oct. 6, 1873, ætat 30. First attack; a lactation case. There is strong hereditary taint on the mother's side—an uncle and full cousin—the former dying insane, the latter recently discharged from this asylum after a short attack of sub-acute mania. A. B. certified to be maniacally excited, and came in so, and with great incoherence. Bodily condition good. After two months of excitement she quickly became anergic; habits very dirty, quite incapable of speaking, and with a very “daft” appearance. She remained like this for some time, and on the signs of slight improvement was placed in a gallery among convalescent patients, where she recovered quickly and completely. She menstruated shortly before leaving, and after convalescence had set in.

CASE V.—A. M'C., female, admitted May 11th, 1873, ætat 16. First attack. No hereditary predisposition noted. She was stated to have had two fits of a doubtful nature a year before admission, and to have menstruated only twice at long intervals during that year. On admission was exceedingly noisy, violent, and impulsively destructive. She remained in this state for two months, when she rapidly sank into intense stupor, similar to, but more marked than in the preceding case. She came out of this in a few weeks, and had another turn of excitement, which was followed again by stupor. She improved, and was discharged, not completely recovered. During the nine months that she was in the asylum she had no more fits. She menstruated twice at proper intervals before departure.

CASE VI.—M. E., female, admitted Oct. 22nd, 1873, æt. 23. First attack. Her mother is described as being very nervous and excitable, and her maternal great uncle was insane. She was apprehended by the police for making a disturbance, and was on admission very noisy and violent, declaiming that she was the Queen, etc. After a few days she also sank into deep stupor, becoming utterly silly, aphasic, and dirty. The circulation was very weak, and she showed a great tendency to be attacked by *pediculi capitis*. She made great improvement, but had a severe relapse into excitement, which was followed again by stupor. The recovery this time was very slow and gradual, but she has recently been discharged cured. For a long time the menses were absent, and she displayed considerable erotism.

CASE VII.—A. R., female; admitted Oct. 20th, 1873, æt. 26. First attack. A lactation case. Hereditary predisposition is denied. She came in labouring under intense anergic stupor, but this had been preceded by ten days' great excitement, during which restraint had been necessary. The improvement was very slow in this case, but she was removed while convalescent, and has since entirely recovered.

CASE VIII.—A. H., female; admitted Oct. 1st, 1873, *ætat* 19. First attack. Her paternal uncle died insane. She had been wrong in her mind for ten months before admission. The exciting cause is said to have been a love disappointment. The first thing noticed was great depression. She then became restless and erotic at the monthly periods, suffering from dysmenorrhœa. She became so excited that she was brought to Morningside, where shortly after admission she completely wrecked the strong room in which she was placed for the night. After some days of violence she also rapidly sank into stupor, with all the symptoms detailed in the preceding cases. She very slowly improved, but never could be got to work very much. She was sent home on trial, and when I saw her a short time back seemed to be getting on very well, and has since been discharged. In this case there was complete amenorrhœa from admission till shortly before her removal.

CASE IX.—M. D., female; admitted March 10th, 1874, *ætat* 18. She has had two previous attacks before of slight degree. They are described as melancholic, and the present is at an interval of one year from the last. She was treated at home on both occasions. There is a very bad family history on the father's side. Her grandfather is stated to have laboured under many delusions, *e. g.*, that he was failing in business; but he never required confinement in an asylum. The father had many epileptiform seizures, after which he was often very irritable and excited. The elder sister became utterly "dazed" by the shock caused by her mother's death, and died herself insane four months after from phthisis; and her brother was very dissolute, ending up by enlisting, though his family had considerable means.

She was certified to be violent and threatening, and was so for a few days after admission. She then also sank into the most intense stupor. The feeble circulation was a very marked symptom. Her pulse at times was inappreciable, and she was very liable to sores on her extremities, similar to those that attend varicose veins.

She has considerably improved, and is now under treatment.*

CASE X.—C. J., female; admitted November 10th, 1873, *ætat* 26. She had a similar attack two and a half years ago. The stupor, however, was not so intense. No hereditary predisposition noted. She had, on the former attack, a delusion that she had had a baby, and was married.

Before the present admission she had been maniacal for ten days. She came in with stupor on her. The bodily symptoms were not so well marked as the mental. She became slightly excited during the first catamenial period, but has been regular since. She has much

* Since this was written, three months ago, this patient has not improved. A few days ago she menstruated for the first time. This was preceded by a slight improvement, accompanied by considerable irritation, and followed by a relapse. It seems now to be a hopeless case.

improved, so much so that she does housemaid's work excellently, but is still resident in the asylum.*

In all these cases, with the exception of A. R., who was removed suddenly, and that of M. D., who is still labouring under stupor, I have been at great pains to test their memory, and all made the same statement, viz., that they could remember what happened before and during the maniacal attack, but nothing during the stupor.

The female sex alone seems to be liable to this sequence to mania. Besides comparing a similar run of male cases, without lighting on one at all corresponding with those cited, I have extended my search further into our Case Books, and neither this, nor my own observation, nor that of others has supplied me with a solitary example.

I have classified (somewhat arbitrarily, I confess) the last 100 cases of mania in females that have come under my charge from admission onwards. This gives the following results:—Acute mania, 36 cases; sub-acute mania, 42 cases; senile mania, 10 cases; mania occurring in drunkards and prostitutes, 12 cases.

Anergic stupor has occurred in six out of the 36 acute cases, and it must be borne in mind that this may not be the maximum number, as some are quite recent, and others have been removed before any sort of termination had been observed. No case has occurred in any other of the three divisions. This, of course, leads to a conclusion that stupor is only to be looked for after a sharp outburst.

The *prognosis*, on the whole, must be considered favourable, if not quite so much so as in those cases where a steady improvement towards a cure takes place, yet it must be better than when symptoms, though less pronounced, show no signs of abating, and far more favourable than when mania and melancholia alternate. Absolute recovery has taken place in five of the cases. The sixth, I am afraid, is in a hopeless condition.

Of the 36 acute cases, putting aside two that are very recent, in which there has been no termination of the mania, complete recovery or convalescence has occurred in 17 cases. In five of these anergic stupor has followed the mania.

But, stopping short of actual recovery, great improvement may be looked for; this, of course, being much influenced by

* She was discharged cured, and after being two and a half months out has lately come back in a state of acute mania.

the time that has elapsed since the excitement passed off. The two following cases are good instances:—

CASE XI.—M. M., female, admitted Feb. 2nd, 1871, ætat 22. Brother insane. She was apprehended by the police for violent conduct. On admission was very noisy, stripping herself, and destructive. This lasted some months; she then sank into stupor, and remained in it for nearly a year. She began slowly to improve, and has had almost to be educated again. Is now going on very well; is very useful in all kinds of household work, and is shortly to be sent out. [Has been discharged.]

CASE XII.—M. A. W., female, admitted (first time) Nov. 7th, 1866, æt. 17. No history. Was very excited on admission, and is described as having been a particularly troublesome patient for some months. She sank into stupor, but became excited again, stupor once more coming on. About two years after admission she was removed to the Poor-house. After an interval of three years, she was re-admitted, and was again a very bad patient. Stupor followed also in this instance. She improved very much; from being just a heap of flesh and bones, she became fat and a very useful person, sewing, scribbling, &c., and very clean and tidy. She was discharged a little time back.

Such instances show that no effort should be spared in these cases, however hopeless they may seem, if they have the advantage of youth.

With regard to making a forecast, while the patient is still labouring under mania, that she will pass into stupor, no certainty can be attained. In all my cases uterine disturbance, in some shape or another, has occurred, and in all but one strong hereditary predisposition has been discovered, and the stronger it has been the deeper has been the depression. The ages have all been below 30—some very young. In some of the cases, too, during the maniacal stage there may be considerable enfeeblement for a little time previous to the stupor. The incoherence became babbling and utterly unintelligible, without any of the fire and vigour that generally mark acute mania. The most vicious and destructive acts were done with a smiling face, giving no impression of some delusion or hallucination originating the misconduct shown.

It is worthy of remark that in two cases there occurred a distinct relapse into excitement, stupor again succeeding, and in three there have been previous attacks of a similar character.

This form of disease seems to be extremely amenable to treatment. Tonics are of especial service, and should be

given directly the excitement has passed off; indeed before it has done so, in lactation and other anæmic cases. Pil. Aloes et. Fer. should be given for a long time together in cases where the cessation of the catamenia has not followed on child-birth, and in these too if the normal period has been passed without their appearance. Stimulants are called for in the same way—ale or porter. Where the stupor is very intense, and the circulation proportionately feeble, more direct alcoholic stimulation is necessary. A marked change for the better took place in Case VI. on the administration of 4 oz. of brandy per diem in a very small quantity of water. The reverse happened when it was discontinued.

A blister over the lower half of the occiput has been followed by improvement in some cases. In a parallel case mentioned by Esquirol, the actual cautery was employed, producing a brief attack of excitement, followed by a speedy and complete recovery.

But no medical treatment is of use unless it is well backed up by moral pressure. Special attention must be paid to the surroundings of the patients. Nothing but harm can arise from their being left to vegetate in galleries or wards, where noisy and dirty patients are situated, and to which their own unruliness may have consigned them. It must be remembered that the mind is for the time a blank—a *tabula rasa*—ready to be impressed again by what is seen around, and without the power to recognise and avoid what is harmful. In common with even the most confirmed demented, they are influenced readily by the wish to imitate others. Let them have good to imitate, and not bad. Therefore, as soon as they are sufficiently improved as not to cause annoyance to others by their bad habits, they should be placed among convalescent patients of the best type, under the care of a kind but firm attendant, who will take any amount of trouble with them. These fellow patients will not only stimulate them by displaying industry and correct habits, but are often of the greatest service in giving help and assistance, which will come more acceptably from one who has perhaps laboured under similar affliction, than from any official, however well suited to the task.

The value of this, so to speak, hygienic treatment has been seen in all the above cases; in some, such as Case I., a change of scene has been followed by marked amelioration in a few hours.

The Mental Aspects of Ordinary Disease. By J. MILNER FOTHERGILL, M.D. Edin., M.R.C.P. Junior Physician to the West London Hospital.

The relations of body and mind are becoming not only much more comprehensible, but even much better understood, since science has shaken off the incubus of theological teaching as to the severance of soul and body. As long as the mind was something separated from the body, or only united to it by slack and loosely fitting ties, mental phenomena could have nothing to do with bodily conditions—insanity was a disease of the soul; and the monk, standing over a miserable lunatic chained to a staple in a wall, and flogging him in order to make him cast his devil out, was a logical outcome of this hypothesis, however repugnant to more recent and correcter views. The baneful psychology of theologians is now thoroughly undermined, and the erroneous and mischievous superstructure is cracking and gaping on every side, and ere long the ground occupied by a crumbling ruin will be covered by a gradually growing erection based on a foundation of facts, and reared by an expanding intelligence. The union of psychology and physiology is the closing of the circuit, in one direction, of the pursuit after knowledge, and forms the initiation of a rational and intelligible comprehension of the mind and of its relation to corporeal conditions. How such mistaken and false ideas of the word *melancholia*, as those entertained by the monk as an alienist physician, could have attained their sway in the face of such maxim as *mens sana in corpore sano*, only becomes intelligible when we remember the ignorance, the superstitious prejudices, the contempt for the knowledge of the natural man, which ever characterise the theological mind, and which found their highest expression during the monkish supremacy of the dark ages—that interval of black ignorance which intervened betwixt the decadence of Latin civilisation and that intellectual evolution, the *Renaissance*, which indicated the advent of the reign of human intelligence. Slowly but surely was the emancipation of the intellect from the fetters of priestly tyranny achieved, as death thinned the ranks of its opponents, and the grim despotism of Torquemada and his coadjutors waned into the pettier and less terrible persecution of more recent ecclesiastics, and the tremendous grip of hierarchical supremacy gradually merged into the palsied, nerveless grasp of a doting and dying theology, the mere spectre of its former

self. Curious men were the Church's leaders of the middle ages. In their cathedrals the light of day was only permitted to enter to a limited extent, and that too through the medium of coloured glass, so as to produce the "dim religious light," while artificial lights burnt up before their altars; so were their minds closed to the natural light of the human understanding, and artificially illumined by the creations of their diseased imaginations, amidst whose coloured rays the white light of truth was always obscured, if not rarely utterly lost. But in the mortality of man lies the hope, the salvation of truth.

The days of the minor Trinity—the soul, the mind, and the body—are numbered; and the sounds of the advent of a physiological psychology are no longer audible only to the finest trained ears of those prepared to listen for them. The ringing notes of conscious truth are now distinct enough to all but those who are voluntarily deaf, who have closed their ears wilfully with the stuffing of preconceived opinion, of confirmed and domineering prejudice: that insanity, which was regarded as the indication of some disease of the soul, in whose production the body had no share, is now found to be linked with appreciable pathological changes, and in many instances is actually amenable to physical remedial agents.

Thought is the product of the cells of the grey matter of the brain—the result of a change of form in organic matter, taken into the system as food, of which acids and other products of oxidation, of retrograde tissue-metamorphosis, are the waste. These waste products of the brain are very similar to those which are found in muscles after much functional activity; the essential product evolved being a form of force, a variety merely—the one being muscular power, the other nerve energy. That nerve energy may go to the calling out of muscular effort, an athletic feat, a brisk row, or it may take the direction of the composition of a song or an essay. In either case the result is the product of the combustion of what was originally food, which is evolved again in the form of force and waste by means of the potent alchemy of the nervous system. In that marvellous crucible the brain, fed by the assimilative processes, matter changes its form, and in the case of Robbie Burns transmuted his oatmeal porridge into Tam O'Shanter.

Such being the case, it is obvious then that bodily conditions will affect the nutrition of the brain, or rather of the cerebral cells, and so modify their products. It is not neces-

sary to go into the more pronounced conditions called insanity for the evidences of such influence ; they are to be found in the varying mental attitudes of common life. It is, however, certain that the study of the more marked cases furnished by insanity, with their deeper shadows and clearer definitions, is the best and most fitting preparation for the proper recognition and discrimination of the finer shades, the slighter changes which exist among the sane. It is only by becoming familiar with well marked cases of disease that we learn to recognise the fainter and less distinct cases of such disease—take small-pox, for instance—and so it is with the study of mental variations. More especially is this the case in attempting to dissect and analyse the varying emotions which sway us like reeds in the wind. At one time all looks bright, cheerful, and encouraging ; at another time, not far distant, the same identical prospect looks cheerless, gloomy, and tinted with despair. This change depends upon physical conditions, and a more pronounced physical state can make a deeper impression, not only involving the emotional centres, but even implicating the intellectual processes. Thus a slight amount of bile in the blood, or an excess of renal products, may depress a man with hopeless despair, or drive him into paroxysms of violent passion. A profound condition of simple anæmia may induce such grave disturbance that the intellect may be influenced and affected. The delirium of acute pyretic disease is a familiar instance of the influence exercised by passing bodily conditions upon the brain and its product—thought.

When there exists a condition of good nutrition of the encephalic centres we experience a pleasant, agreeable sense of well being, *bien etre*, which shows itself very distinctly in after dinner geniality, cordiality, and generosity. When the nutrition is imperfect, or the arterial blood is of abnormal composition, the consequences are a mixture of irritability and bad temper, blended with depression. This is seen in common life, and we are all familiar with the crossness of the hungry man ; when fasting, crossness is interchangeable with hunger, and is often its substitute, and forms a contrast to the amiability of repletion. Especially is this irritability seen in those whose digestive powers are somewhat feeble, and only capable of taking up at once such an amount of nutrition as shall serve the system but for a brief period ; when that store is exhausted and other food is not forthcoming, there comes on irritability, tinted with depression, and if the desired food be longer withheld or delayed, more

marked evidences of the craving for nutrition on the part of the cerebral cells are furnished. A similar irritability is the ordinary mental attitude of convalescence from acute disease, and either precedes or runs into and co-exists with the keen appetite usually found at that time. They are linked together by something more positive than mere coincidence.

The dependence of modifications of the functional activity of the cerebral cells upon other corporeal conditions than mere changes in the blood, upon general plethora or anæmia, or passing conditions of the presence or absence of nutritive plasma in the circulating fluid, is now well recognised. There are communicating fibres, electric wires as it were, by which the brain receives impressions of varying character from different organs. An impression coming in from some far away peripheral point may stimulate or inhibit the action of the cerebral cells. So strong may be the impression that actual insanity may be produced, as in the case of a lady, related by Schroeder van der Kolk, who became insane whenever her womb became displaced, and sane again as soon as it was returned into its place. Such changes as constitute insanity are the more pronounced of those reflex consequences of certain systemic influences upon the working of the brain. There are the conditions known as *melancholia* and the *spes phthisica*. They are only two of the best known instances of the modification of the mental processes depending upon morbid conditions of different viscera. The effect of several morbid states is to stimulate the brain into greater activity, to evoke higher manifestations of its power. A non-medical, but most acute observer and able writer,* says: "It seems even that bodily pain and disease are not only compatible with, but may directly contribute to, the loftiest efforts of the intellect. They sometimes positively enhance its powers. The effects of some disorders and of certain sorts of pain upon the nerves is to produce a cerebral excitation; and the stimulus thus communicated to the material organ of thought renders it for the time capable of unusual effort. Men under the stirring influence of severe pain are capable of a degree of imagination and ratiocinative brilliancy which astonishes themselves and all who have known them only in ordinary moods of comfort. Extinct faculties come back to them. Torpid faculties become vigorous and sparkling. Forgotten knowledge is recovered. Marvellous gleams of

* "The Enigmas of Life," by W. R. Greg.

insight are vouchsafed to them. The wonderful eloquence of Robert Hall was doubtless greatly owing to the stimulating influence of a terrible spinal malady. Dr. Conolly mentions a gentleman whose mental faculties never reached their full power except under the irritation of a blister. Abnormal and unsound conditions of the bodily organs sometimes give us glimpses of mental powers and possibilities far exceeding anything of which ordinary health is capable. The phenomena of some nervous disorders are positive revelations, and most startling ones, of what the human intellect disengaged from matter, or under favourable material conditions, might achieve and learn."

Greg is led away into poetical metaphor when he talks of intellect disengaged from matter, which is, however, permissible and allowable in one who is not a professed physiologist. We are all familiar with the effects of alcohol upon the intellectual powers, especially when combined with others, as in wine. Two cases illustrating the effect of paroxysms of mania upon the intellectual powers are given by Abercrombie.* A gentleman mentioned by Dr. Willis, who was liable to periodical attacks of insanity, said that he expected the paroxysms with impatience, because he enjoyed during them a high degree of pleasure. "Everything appeared easy to me. No obstacles presented themselves, either in theory or practice. My memory, all of a sudden, acquired a singular degree of perfection. Long passages of Latin authors occurred to my mind. In general I have great difficulty in finding rhythmical terminations, but then I could write verses with as great facility as prose." "I have often," says Pinel, "stopped at the chamber-door of a literary gentleman, who, during his paroxysms, appears to soar above the mediocrity of intellect that was familiar to him, solely to admire his newly-acquired powers of eloquence. He declaimed upon the subject of the Revolution with all the force, the dignity, and the purity of language that this very interesting subject would admit of. At other times he was a man of very ordinary abilities." Had these manifestations of intellectual power stood alone, these maniacal paroxysms would have formed intervals of inspiration, of prophetic ecstasy.

There are two distinct physical conditions under which the intellect seems to possess a power and a brilliancy much exceeding the ordinary and normal standard. These two conditions are (1) the initial or pre-tubercular stage of pulmonary

* Intellectual Powers. Section IV. Insanity.

phthisis, and (2) the condition of chronic gout. Whatever difference of opinion may exist as to the explanation of the causation of this high state of mental activity, there can be none as to the actual fact. There is, as it were, almost an aureole of intellectual light around the heads of those who are just about to enter the fated pathway of pulmonary tuberculosis. To what it is due, it is difficult to say. One factor may be some accession of arterial blood to the cerebral cells in excess of the normal flow. We know that there are usually an accelerated pulse rate and a heightened temperature in such cases. There may be some nerve communication betwixt the lungs and the vasomotor nerves of the cerebral vessels, of which we are as yet but dimly conscious, which may some day explain the matter to us. As to the intellectual power of the gouty, there is less difficulty in explaining it. In the first place the blood of the gouty is highly charged with nitrogenized matter—the waste of tissue, or of peptones which have never been converted into tissue, but which have at once proceeded on a retrograde career. Carpenter has pointed out (“Human Physiology,” sec. 62) how desirable a nitrogenized diet is for the evolution of nerve force, while Liebig dilates upon the effect of food upon the disposition, in his well known “Letters on Chemistry,” and gives distinct utterance to his views. M. Metz, of Matray, found the value of a liberal dietary in giving strength of will to irresolute boys in his reformatory. An excess of nitrogen in the system, and especially in the blood, acts as a stimulant to the brain cells in the case of the gouty. This, however, is but half of the matter; there is an equally or even more important factor in the condition of the circulation.

Careful microscopical investigation, sphygmographic observation, and minute registering of physical signs, together with their elucidation by the light of recent physiology, are demonstrating to us in unmistakeable accents the state of the circulation in chronic renal inadequacy. There is usually decided hypertrophy of the left ventricle, and a high arterial tension, originating in a contracted condition of the terminal arterioles. As a consequence of the high arterial tension the blood pressure on the brain, the highest point of the organism, is well sustained; and a free supply of arterial blood, rendered perhaps more than ordinarily stimulating by the presence of nitrogen in it in excess, evokes a heightened activity of the cerebral cells. Schroeder van der Kolk

states, "that persons who suffer from hypertrophy of the heart with enlargement of the carotids, and in whom more blood flows to the brain, are for the most part excitable, and come easily into ebullition." Certainly simple hypertrophy of the heart is mostly found in the subjects of chronic renal changes. That there is a certain explosiveness in the gouty together with much mental activity, is simply a clinical fact. The excess of nitrogen in the blood stands in a suggestive relationship to the explosive irritability, while the high blood pressure is evidently causally related to the heightened mental activity. In fact, the two factors requisite for the rapid evolution and discharge of force by the cerebral cells are found together under the above named combination. If the changes in the circulation are imperfect, and the blood pressure is but low or even normal, the gouty person is not mentally inactive, but is despondent.

Bichat observed that the length of the neck exercises an influence over the mental activity of the individual. Persons with short necks have a better sustained power of work than those who have long necks, or in other words, *cæteris paribus*, the brain which is superimposed on a short neck has an advantage over the brain which is fed by a long carotid. Van der Kolk is in agreement with Bichat upon this point. There seems, indeed, to be a good deal of truth in the assertion, and a pretty extensive series of observations inclines me to agree with them.

Van der Kolk also quotes from Haller the observation that rachitic children have generally large heads and possess quick perceptive faculties; also that the blood vessels of their heads are distinguished for their large calibre. Certainly such children are commonly very precocious. There is a point, however, in relation to this matter which must not be overlooked. Rachitic children are usually of the strumous diathesis, and in the strumous there is usually an excess of lithates in the blood, which will not be without the ordinary effect exercised by nitrogen upon the brain. The great Dutchman also states, "It is a known fact that deformed hunchbacked individuals, in whom the blood flows more quickly and strongly towards the brain, are remarkable for vivacity of spirit." Now it will not do in the consideration of this matter to leave out of the question the possibility of a mental factor, viz.: that the physical deformity turns the mind of the individual towards mental cultivation as a compensation for bodily defects, and inspires the hunchback to

redeem by mental power what he loses by bodily deformity. Granting this at once, readily and cheerfully, we must also remember that mere will and perseverance, though possessing much effect, no doubt, will only exercise a certain amount of influence, and will only permit a brain to make the most of itself. What is there potentially it may draw out into actual manifested existence; but there its power ceases. An effort of will may and does dilate the blood vessels of the brain, and permits of larger circulation through it; but the general blood pressure in the systemic vessels is an important matter in sustaining the intracranial flow. If the general blood pressure in the vessels of the head and neck is high and well maintained, then a brain can work up to a much higher power, just as a steam engine may be worked up to a higher pressure, and so become actually more powerful. The power varies with the pressure on the square inch, either in brain blood vessels or engine boilers.

There is a curious anatomical explanation of the ability of the hunchback. Rokitsky has pointed out the existence of cardiac hypertrophy in cases of distorted thorax. The distortion and consequent curvature of the aorta occur after the cerebral vessels are given off, and so an obstruction to the blood flow below that point will increase the blood pressure in the parts above the obstruction. The result then is that we have an hypertrophied heart and an obstruction in the descending aorta, and a large and free blood supply to the brain; a condition, as we well know, productive of heightened brain activity.

But while we recognise the fact that mental conditions are causally associated with the amount of the blood supply, indeed to a great extent rest upon it, it must not be supposed for one moment that I wish to overlook or under-estimate the importance of the condition of the cerebral cells themselves; either as to their inherited peculiarities, or as to the conditions produced by the experience of the individuals. Such consideration is, however, without the sphere of the present paper, which deals with cerebral manifestations in relation to ordinary disease, and not with those ailments which belong to the province of the alienist physician. To one form of disorder of the cerebral cells alone may reference be made here, and that is to the effects of mental over-strain. Brain tissue can be developed by exercise and worn out by over-work. When this latter condition has been induced there exists that irritability which precedes, or rather forms part of

the early stage of the exhaustion of nerve matter. In all over-tried brains there is much irritability and tendency to manifest what we term temper. This fact we learn in time about the individual, but we are somewhat slow to recognise it in the abstract. It is socially desirable and important that such recognition be more general.

In the consideration of the associations existing betwixt cerebral manifestations and certain conditions of the organism, and the effect exercised by the latter upon the former, it is not unimportant to bear in mind that the brain is divided into two vascular areas, (1) the anterior, fed by the internal carotids, and (2) the posterior, fed by the basilar artery, the union of the two vertebral arteries. The existence of the Circle of Willis has done much to give us false impressions as to the amount of inosculation in the intracranial circulation. The existence of necrosis after embolism tells us very clearly of the slight character of the inosculations of the terminal vessels in the substance of the brain; while the occurrence of hemiplegia after ligature of one carotid reveals the inadequacy of the circulation through the Circle of Willis to maintain the functional activity of the half-hemisphere whose direct blood supply has been interfered with. These two vascular areas contain brain-cells with different properties and functions. There is much reason to believe, as Schroeder van der Kolk and Laycock have pointed out, that the emotions and systemic sensations lie on the posterior area; and that the intellectual and motor powers, together with general peripheral sensations, lie on the anterior area. In other words, the posterior area is associated with the organic processes of the system; the anterior with the animal life, with the relation of the organism to its surroundings. This view is not in any way invalidated by the fact that this emotional area is the last to be developed. The vaso-motor nerves of these two areas are differently derived, and justify Bickat's prevision that the emotions and passions are located in the organic processes; if the arrow did not hit the bullseye, it certainly did not miss the target. The vaso-motor nerves of the cerebral arteries spring from the inferior cervical ganglion, into which run the fibres ascending from the abdomen by the greater splanchnic. Indeed, Cyon and Aladoff have traced nerve fibres from the liver up the vertebral arteries by the route described. On the other hand the carotids derive their vaso-motor supply from the middle and superior cervical ganglia. Thus we can see how the emotions sympathise with the organic processes,

especially those located in the abdomen, and so can see melancholia in a new light; and can comprehend how mental depression may accompany, or wait upon, and depart with abdominal disturbance, as for instance brought on immediately by a displaced uterus, and vanishing at once upon its replacement; or its co-existence with a mass of scybalæ in the rectum. The disturbance does not extend to the intellectual processes; the emotions alone are involved. The sense of well being, or of discomfort, depending upon systemic conditions, tells of the relation existing betwixt the emotions and the organic processes, and the nerve tracks just described enable us to comprehend the subject more clearly.

There is an interesting point associated with this division of the cerebral hemispheres, and the functions of each division, to which we may advert. It is the association existing betwixt states of emotional depression and abdominal disease; and the comparative absence of such depression in affections of the thoracic viscera, and especially of the lungs. Marshall Hall (Art. Symptomatology, "Cyclopædia of Practical Medicine") writes—"The temper of the patient is singularly modified by different disorders and diseases. The state of despondency in cases of indigestion forms a remarkable contrast with that of hopefulness in phthisis pulmonalis and other serious organic disease." Not, however, that a melancholic condition is incompatible with pulmonary phthisis, as Dr. Clouston has shown. The relations of heart disease to the thoughts and feelings are complex; there are not only the nerve connections, but there is the distinct effect produced upon the brain and its outcomes by the modification of the circulation.

As to diseases of the lungs, the condition of depression is rarely present, and, when so present, is possibly due to some abdominal complication; though, of course, some of the existing depression may often be fairly attributed to the gravity of the situation, and the anxiety naturally associated with an intelligent comprehension of the danger impending. A portion of the depression may fairly be regarded as mental, and not merely the effect of distant systemic irritation. In tuberculosis of the lung there is commonly such an emotional attitude in the patient as has earned for itself the designation of the *spes phthisica*. Here the hopefulness is as irrational as is the depression of some other affections. The consumptive patient, just dropping into the grave, will commonly enough indulge in plans stretching away far into the future, ignoring alike his real condition, and the impro-

bability, nay, even impossibility of any such survival as he is calculating upon. It is a curious condition, yet, nevertheless, a familiar state. It suggests some effect upon the emotional centres, for it is apparently a state of too high hopefulness, depending upon an exalted condition of the emotional centres, an escape from the control of the intellectual centres indeed. Hope seems to rise above the intelligence; just as in certain abdominal diseases there is a depression which successfully defies the corrections of the intelligence. The intellect does not seem equal to finding the true bearings, or of correcting the exalted emotional centres. In curious relation to these conditions stands the well known difference of the pulse in thoracic and abdominal disease. In thoracic disease the pulse is usually full and sometimes bounding; in abdominal disease it is small, and not rarely thready. The pulse of pneumonia and the pulse of peritonitis are distinctly dissimilar, and contrast with each other. It is well-known that there is much more tendency to collapse in abdominal than in thoracic disease. Dr. Lauder Brunton assures me that even under chloroform, and deeply under too, collapse is common in animals when the stomach is opened. Taking the question of the relation of the pulse to abdominal and thoracic disease, together with the emotional attitudes of these different affections, the synthesis is unavoidable that some effect is produced by the tubercular disease in the lungs upon the emotional centres, as opposite to the effect of abdominal disease as are the varied effects upon the pulse; and, further, that the result is probably produced through the circulation. The explanation which seems shadowed out, for it does not really amount to more, is that abdominal disease induces an anæmic state of the emotional centres—for depression is the outward indication of anæmia of the brain—while phthisis leads to an hyperæmic state, associated with exalted emotional conditions. In either case the intellectual and volitional centres appear unequal to the task of correcting the emotional disturbance, of maintaining that balance which normally exists. That our emotions are closely intertwined with our systemic conditions is evidenced by our everyday experience. The world and all in it looks bright or dark, rosy or gray, hopeful or gloomy, very much according to the functional activity of our organic processes, the state of our assimilation, of our secretions and excretions.

As a matter of fact, there are certain mental attitudes found in some diseases which are so regularly present, so

well marked and pronounced, characteristic indeed, that they may fairly be included as a part of the rational symptoms, and so be utilized in the construction of the diagnosis. So commonly is mental depression found along with biliary disturbance that the name *melancholia* was given to these conditions of mental gloom; and modern observation is but establishing the propriety of the term. Similar depression and mental disturbance are associated with inaction in the colon, and especially with any accumulation in that hollow viscus. Schroeder van der Kolk narrates several cases which illustrate this blending of physical and psychical conditions; the mental disturbance coming on and passing away with the corporeal condition on which it causally rests. Not only so, but he notices a very curious fact about the nature of the melancholy arising from physical conditions, and contrasts the melancholy induced by disturbance of the colon, or intestines generally, with that which takes its origin in some abnormal conditions associated with the reproductive system. He delivers himself thus—"The psychical basis of this form (connected with the generative organs) of melancholy is sorrow, dejection, self-accusings, as in the form proceeding from the colon sinistrum, but with it there is something peculiar. The patient, melancholic from the large intestine, has to do with imaginary misdeeds—he is a wicked man who has squandered everything, or who shall appear before the judge; the other, on the contrary, considers himself sinful—'he is forsaken by God, who can never forgive him his misdeeds; he is lost eternally.' In a word, the depressed tone of mind here passes over into religious melancholy—all afflictions have a religious colour." The association betwixt the reproductive organs and the future is curious and suggestive. It is the physical side of the question, whilst the psychical side of it is that we find that all religions have engaged and concerned themselves with the sexual passion. From the times of phallic worship, through Romish celibacy and Mohammed's sensual paradise, down to the times of Mormonism and "free love," theology has linked itself with man's reproductive instincts.*

Allied in essence to melancholia is the panphobia or "low spirits" of the anæmic brain, common to females generally, but especially found in the habitués of our out-patients' rooms. It is the cry of the suffering encephalic centres for better

* The creed of Mormonism is this—that it is the primary duty of existing beings to find tabernacles of flesh for immortal spirits waiting to be born.

nutrition, for a more liberal supply of arterial blood. There is much emotional mobility, and the patient is easily moved to a flood of tears by the slightest exciting cause. Under different circumstances, and with women of different psychical diatheses, the depression takes the direction of the relief afforded by alcohol—and this is the most depraved, the most hopeless, and the deadliest of all forms of habitual intoxication—the more hopeless every alienist physician knows from its being based on a physical condition; or it stimulates the spinster and the widow to a pseudo-religious existence, where the religious fervour is the measure of the cravings of the ungratified physiological aspirations.

We do not consider, perhaps because the subject is repugnant to us, how much of each one's psychical attitude, even to the highest of all thought, viz., religious thought, the relations of the created to their Creator, is really based upon conditions of the body; that body which the religious denominate vile, which they would trample under foot, nay, even ignore, yet which is reigning supreme and dominating and directing them in their highest aspirations. What a terrible revelation this is of the psychological attitude of the monk, who, by scourgings, fastings, sleeplessness, and religious exercises, thought to subdue the inborn passions, which, bursting the imposed barriers, were crowding his mental horizon with gloomy or sensual images, and presenting a future of everlasting damnation to his superstitious vision. If that celibate but knew how all the time the passions he would subvert were yet ruling and coercing him, the scourge and the breviary would drop from his palsied grasp. And yet, the startling accents of truth he would probably interpret into the screech of some demon! Poor souls! how determinedly they bent themselves to their Sisyphean task; happily unconscious of the futility of their efforts.

Another form of psychical disturbance is that furnished by the perturbations which are termed hysterical attacks, and which usually occur under circumstances of repressed passion. There is an excitability and mobility about the person which tells how the emotional centres are quivering and vibrating under the tension to which they are subjected; and the emotional oscillations, from weeping to laughing, indicate that the emotions are no longer under the control of the volitional centres. This loss of equilibrium becomes more marked when any disturbance of the bodily health leaves the organism undefended and at the mercy of these

emotional storms. Hysterical attacks are general explosive discharges of the emotional centres—as epilepsy is of the motor, or mania transitoria (demoniacal possession) is of the volitional centres. They all resemble the “blowing of the engine” when it has stood still some time and the steam pressure is becoming dangerously high.

Allied to the emotional mobility of hysteria is the mental condition found along with, or perhaps rather a part of, that complex condition known as Exophthalmic Goitre, or Grave’s disease. Here there are three distinct physical elements—protruding eyeballs, an enlarged thyroid, and a tumultuously acting heart. They stand in an interesting relationship to each other, and Trousseau denominates the general condition a neurosis of the sympathetic. There seems some good grounds for such view of the pathology of this state, for the emotional centres are certainly the ones chiefly implicated, and this being the case it is but probable that there is a psychical state induced; so adding a psychical factor to the physical elements for the formation of a diagnosis. The sufferers from this disease are chiefly women, and often very nice women too. Commonly, and especially if still young, there is a neatness of apparel and a style of behaviour which indicate an æsthetic taste above the average. Mentally, too, they are attractive. But there is a mobility of feeling, a diathetic sensitiveness especially to psychical perturbation, which is even more characteristic of the malady. Passing ebullitions of feeling are very common with them; and the singular thing is that the special object of their effervescent wrath is usually the person of whom they are fondest, to whom they are most attached—upon whose head the storm of their discharging emotional centres bursts. The husbands of these agreeable but emotionally mobile creatures are commonly the objects at whom the explosion is directed; at other times, especially in the unmarried who have no husbands, or the uncourted who have no lover, as the centre piece of their emotional foreground, at whom to direct their exploding centres, it is the favourite brother or member of the family who comes in for the violence of the outburst, the brunt of the storm. As a rule they are very pleasant women, but their moods are not always altogether agreeable.

Another well known relationship is that of goitre and mental imbecility, of imperfect cerebral development along with enlargement of the thyroid gland. Various theories have been broached as to this association; from that of its

being due to the presence of lime salts which affect the thyroid while closing up the fontanelles prematurely, and so arresting the further development of the brain—for the Cretin's imbecility is that of arrested development, the mind remaining permanently at that stage which is normal in childhood—to that of Van der Kolk's, that it is the derivation of the blood away from the head by the enlarged thyroid branches of the carotids which occasions arrested brain-development. Unfortunately, however, the last ingenious hypothesis does not accommodate itself to the fact that the enlarged thyroid glands and the Cretin skull are not always found together in the same individual.

Much mental instability is commonly found amongst the sufferers from chronic heart disease. I am afraid that I may have written, as many may think, *ad nauseam* on this subject; still the matter cannot be entirely omitted from our present consideration. If the reader be conversant with my views he may omit the following section and proceed onward.

Many and pronounced are the mental modifications induced by disease of the heart. In one case, I remember well, a very old patient, who was the subject of aortic obstruction, became remarkably polite when the results of the cardiac lesion became very marked; a mental attitude far removed from any that he had hitherto assumed. Usually a totally opposite character of change is produced, and the effect is to cause the mental operations to be imperfect, unsustained, and unequal; while there are present suspicion, doubtfulness, vacillation and caprice. Indeed the mental change is usually for the worse; and along with intellectual enfeeblement there is that alteration of the emotional products which we have seen to be allied with cerebral anæmia. The false and morbid feelings which are the products of imperfectly nourished cerebral centres bear that relation to normal thought that Emerson said that evil did to good, viz., that it was good in the making; and more perfect elaboration of the outcomes of the emotional centres would give us healthy and not morbid feeling. The mental attitude of sufferers from heart disease is usually one of caprice, unsustained volition, together with suspiciousness and panphobia—imperfect emotional products.

Another marked mental attitude is furnished by those who suffer from gout in any of its forms, for suppressed gout is the most Protean of all diseases. We have already seen how gout poison stimulates the intellect in the earlier stages of

granular kidney; what we may now consider is the mental modification produced by advanced disease. There is a mixture of explosiveness, the gouty temper, with suspicion and depression, the consequences of spasm of the intra-cranial arterioles. That is, instead of the well-sustained blood pressure of the early stages with the stimulant gout poison irritating the cerebral cells into activity, we have the stimulant quality of the blood together with an impaired and insufficient blood supply from the hypertrophy of the muscular walls of the cerebral vessels, so commonly found (Bucknill and Tuke, ed. 1874), while the hypertrophy of the left ventricle is being undermined by structural degeneration. Consequently the resultant product is a blended compound of irritability and suspicion, bad temper and anxiety, the latter all the more aggravating from a consciousness that it is not a mere illusion but an emotional hallucination.

Such individuals are the terror of their dependents and the *bêtes noires* of their domestics. There is such a villanous state of temper, at times ascending to ferocity, that the person becomes simply intolerable; the unfortunate sufferers themselves being still further tortured by the haunting impression that they are utterly unreasonable, and that their particular attitude does not arise from any provocation from without, but that it takes its origin in some abnormal condition existing within. In one case well known to me the sufferer sought relief in religious exercises, in resort to her Bible and to prayer—it is needless to say without the desired result. What she needed was not spiritual discipline, not correction of the mind through the soul's portals, for she was a truly good and high-minded woman, but a remedying of the bodily condition on which the mental state causally depended. As a matter of fact, a well directed therapeutics produced what all the spiritual exercises had signally failed to achieve, viz., a restoration of the normal feelings and emotions.

Another peculiar and fairly pronounced mental attitude is that furnished by the victim of cancer. The form assumed here is that of sullen and defiant submission to the inevitable. There is rarely any active and positive attempt made by the sufferers themselves to avert their doom; and the welfare of cancer curers is much more dependent upon the anxious friends of the patient than upon any great earnestness upon the part of the patients themselves to escape the fate before them. There is, as it were, a volitional control exercised over

the impulses, which volitional control is something marked, and the sufferer submits to a grip he sees no chance of eluding; but it must not be supposed that there is any abolition of the instinct of self-preservation, this is merely subordinated to the curious volitional control. That this is the actual attitude is shown by the fact that when the mind is wandering at the last, especially in gastric cancer, which interferes so much with nutrition, the patients in their delirium commonly ask for a knife in order to excise the hostile malignant growth which is involving their existence.

The mental attitude of pyæmia again is quite distinct from any of the foregoing. It is that of absolute indifference. From the first long shivering fit which marks the initiation of the fateful disease, the mental attitude is usually that of imperturbable indifference. Utter unconcern as to the future and its prospects, as to the course of their disease, is the psychical *pose* of the victim of pyæmia. It contrasts very strikingly with the ill-founded hopefulness of hectic, and especially of pulmonary phthisis. The indifferent, careless, emotionless, pyæmic, patient and the sanguine, hopeful sufferer from hectic, side by side in a hospital ward, rivet the attention of all observant beholders. Of course there is no attempt made to assert that these mental attitudes described are invariable and ever present in the different diseases, only that they are common—strikingly common; so frequent, indeed, that they cannot be regarded as mere coincidences. This pyæmic indifference, for instance, is not always found. “Occasionally the patient is depressed; he anticipates from the outset of the disease a fatal issue.” (Pyæmia—Astley Cooper’s Prize—Braidwood.)

In diabetes mellitus, too, there is a condition of mental languor and depression, which is as marked as the muscular lethargy and lassitude manifested by sufferers from that affection, and which often precede those physical symptoms which we are too much inclined to regard as the indications *par excellence* of that disease.

The condition of the mind in the delirium of fever is a subject of much interest, albeit it is surrounded by many difficulties. The great one is that people at large are too much inclined and accustomed to regard delirium as aimless, objectiveless mental action—a chaos of broken ideas and unconnected thoughts, or an uncovering of the sewers of the mind, the revealing of the secrets not always innocent. The first is the way they regard it in others, the latter is the form

they apprehend it in themselves, so that there is not given to it that intelligent attention the subject deserves; neither, again, are those immediately and constantly around the delirious patient those who are likely to possess a calm, dispassionate, and, withal, competent capacity to attend to what is going on in the patient's mind, so far, at least, as it finds expression in words. The anxious relations, or the overworked paid nurse, do not possess the qualities requisite for the correct observation of this complex condition, even if they could be induced to make the nature of the delirium the object of their attention. The impressions remaining on my own mind of my thoughts during a pretty sharp and well sustained delirium, due to a grave attack of scarlatina, are that there were two leading ideas dominant in my mind: the one in relation to my surroundings, the other in relation to my aims and my occupation. The first, though less predominant, were distinctly the more vivid impressions, and they were not only very unpleasant, but their remembrance is ineffaceable. They arose chiefly through the weakened senses, especially the sense of sight. The room—the bedroom I had occupied for years—had been rearranged to adapt it to the necessities of a sick room, and on waking the eye did not immediately recognise the room under the altered circumstances. This at once gave a direction to the wandering thoughts, and the leading idea was to get home. Conscious enough to feel very ill and dangerously sick, the predominant ruling wish was the very natural one to get home, and to occupy my own bed and bedroom. The opposition offered to my attempts to escape from the room seemed to me so unnatural, so unjust and improper, that violence must be resorted to in order to overcome it, and then followed a wild, delirious struggle, terminating in complete exhaustion.

The opposition so offered engendered a strong feeling of personal dislike, blended with suspicion, towards those around me, and their kind attentions were interpreted by the reeling brain as unjustifiable interference with natural and intelligible wishes, as well as impertinent interference with the liberty of the subject, and especially objectionable to a man in his own house where he was accustomed to be obeyed. The remembrance of the feeling of dislike thus originated remains sufficiently strong to occasionally tint the thought yet; in fact, the residua remaining in the cerebral cells exercise an influence on the thought currents when passing over them. By a little volitional aid an impression can now

be called up in distinct imitation of the primitive mental attitude.

The other source of disturbance was the influence of the lines of thought which were predominant in the mind ordinarily. These formed the chief subject of my wanderings during the delirious period. The duties of my profession and the calls of my practice were intermingled with broken glimpses and imperfect snatches of my ordinary topics of thought, and I would be for hours apparently engaged in professional duties, or engrossed in thought on medical subjects. At times the impression that certain patients ought to be seen would become so vivid that I desired to be dressed in order to pay the requisite visits. Opposition to this, of course, aroused indignation and resentment, and strengthened the suspicions already excited by the restraint exercised to prevent me, as I imagined, returning home.

The remembrance of the condition is still sufficiently vivid to explain and render comprehensible the mental attitude of those whose intellect is waning, either from dotage or from a like condition of brain failure inaugurated by acute disease. Why their relatives, who attempt to contradict, to command, or to control them—not always with the best of taste or the happiest of tact—are the objects of dislike and suspicion, is intelligible enough. Also why certain attendants who assume an opposite attitude, viz., that of humouring and cajoling them, should be preferred, and thereby endowed with a potential undue influence, is also explicable. The brain becoming less and less functionally capable, is more and more unequal to the correction of its ill-founded or unjust dislike, of its morbid emotional attitudes, and the impressions once established in the mind, no longer evenly balanced, can not be eradicated or even rectified, by reason of the growing brain enfeeblement.

There is nothing heteromorphic in the mental products, there is just that deviation from the rule that might be anticipated when the functional activity is modified by structural changes. There is not a new line of thought instituted leading in opposite directions to the normal thought, but a misdirection of the ordinary mental processes. There is, however, a certain amount of illusion, which when pronounced, or when the effect upon the brain cells is such as to cause an evolution of distinctly erroneous thought, or in others actual hallucinations, indicates that the frontier of sanity is crossed, and the territory of insanity entered.

Such considerations will enable us to comprehend, and, perhaps, even to observe, that initiatory stage of mental impairment which precedes obvious and well marked dotage. The earlier stages, the lighter shades of mental failure, of waning brain power, are distinct enough to the trained eye, educated to observe and note, long before those coarser and more obvious changes are reached and arrived at which are recognizable by the uneducated observer as unmistakable. Such mental changes are commonly found in those undergoing degenerative physical changes, not only in the very aged, but in those passing into premature decay; in fact, the mental impairment and decay are but the evidences or outcomes of the implication of the brain-tissue in the general degeneration. We are, of course, most familiar with such changes in the very old, in whom we regard more or less of dotage as almost normal, just as muscular atrophy and tremulousness seem a part of the condition of extreme senility. The mental grasp is very imperfect and illusive; petulance and caprice are the mental characteristics, especially of those in whom the intellect was never very strong. Their mental eye is no longer evenly adjusted, and their intellectual vision is deceptive and untrustworthy. A dim consciousness of some such change obtains in the minds of these individuals themselves, which makes them deeply suspicious of others, and extremely susceptible and ready to take offence at the slightest indication by others of any knowledge of their growing incapacity. Nor can we feel surprised at the sensitive suspiciousness on the part of waning power. Mental decay cannot be a pleasant matter for those undergoing it, and no wonder they are excessively jealous of any alteration of manner or attitude in others with whom they are brought into contact.

A similar mental condition of enfeeblement, combined with excessive jealousy and deep-rooted suspicion, is furnished by those who have expedited and anticipated the normal time of senile decay by habits of drunkenness, often associated with other exhausting practices. The man who is beginning to yield under the persistent alcoholisation to which he subjects himself, and who feels that his powers are giving way, is generally suspicious and jealous, if not actually malicious. The intellect undergoing premature degeneracy is more readily and easily provoked than is that of a person entering normal dotage; while there is often co-existent a certain amount of spasmodic vigour, of temporary active irritability. Such persons are simply dangerous to those dependent upon them,

and are not to be trusted further than is unavoidable; their mischievousness being only restrained by their incapacity to execute or put in force their malicious designs. There is a distinct approach to that maliciousness which exists in bad-tempered animals, and is called viciousness. The only ray of comfort for those about them is the improbability of their carrying out any of their wicked and ill-natured intentions.

There are two other mental attitudes which are not directly associated with bodily disease, but which exercise so distinct an influence over physical conditions, especially in sickness, that they may not improperly be considered here, though not quite falling under the heading of this paper. One is that condition of mental impairment in which the intellect is rather servile or terrorized over, and which is usually found amidst elderly people who are utterly dependent on the bounty, and therefore on the will and caprice, of others. That such a condition of helpless submission should obtain under these circumstances, and especially in women, is only what we can readily conceive. The utter helplessness and entire abolition of self-confidence so induced have a most pernicious and destructive action upon the mental processes; the intellect becomes restricted, and solely directed towards observing and accommodating themselves to the varying moods and passing caprices of those upon whom they depend. Chameleon-like, they change colour with every new shade of opinion with which they find themselves in contact, until at last they lose their individuality of colour altogether. Such shadow-like changes cannot of course be entirely concealed from the vision of those to whom they wish to accommodate themselves, and their helpless submission is revealed; and the recognition of it by those to whom they so convulsively cling induces them to be still more exacting, and even actually indifferent to their feelings. The mental conditions of these unhappy beings is pitiable in the extreme; there is a paresis of all volition, and they are metaphorically as backboneless as a jelly fish. "Everywhere and ever, to be weak is to be miserable," and cunning is the only refuge of the feeble. This mental attitude becomes a matter of moment, and needs recognition when such persons are the subject of any physical change calling for medical care, and must be included in the formation of a prognosis, and in the design of the line of treatment to be adopted; the mental instability and tendency to oscillate being very troublesome, and interfering with the working of every systematic plan.

There is in such persons a state of self-induced brain enfeeblement for which they are not altogether responsible; it has been forced upon them by the irresistible pressure of their surroundings.

A similar brain starvation is manifested under a totally different series of circumstances, viz.: that of its deliberate voluntary production in persons of a serious mental diathesis, the naturally religio-melancholic. Here the first step is a species of selected ambition, the aspirations being originally directed by their surroundings, and ultimately guided by an artificial substitute for the will which they in time develop. It is commonly seen in dissenters who have acquired some means in retail commerce, and most markedly in the spinster daughters of retired tradesmen. It is the psychical side of the question, of which the physical side has been discussed before. The intellectual imbecility ultimately reached under these circumstances is something pitiable. The intellect is prostrated before an irritable conscience, rendered morbidly sensitive by persistent self-introspection fostered by vigils, developed by fasting, and mis-directed by a cramped and imperfect education. "How fearfully omnipotent is excessive religiosity of temperament in blinding the understanding! To such an extent has this gone that the antagonism of faith and reason has been erected into an axiom, and the subordination of the understanding to the imagination—of the intellectual to the spiritual faculties—has been preached by the pious as the first of duties." The influence exercised by this condition of intellectual enfeeblement becomes practically important when any line of treatment has to be pursued, and especially so in that complex combination of dyspepsia and constipation to which such persons as are described in the last two paragraphs are so subject. With such persons, and most so with the latter division, the plainest and simplest truths of the natural man seem to take on the aspect of the most abstruse and difficult problems, and the fullest explanations and the clearest directions are insufficient to enable their enfeebled intellects to grasp the subject matter. The palsy of debasing credulity, falsely characterised as religion, has spread over them its enervating clutch, and the mind crumbles down into detritus and ruin, on which superstition takes up its abode and reigns with undisputed sway, against whose tyranny it is simply impossible to inspire or institute an intellectual revolution. Mental emasculation at the bidding

of religious sentiment is as certainly and deliberately self-induced here as was the spontaneous mutilation of Origen.

In those who are exhausted and worn out by toil, either mental or physical, or both combined, but usually by strenuous bodily labour united with petty mental anxieties and fretting, wearing thought, a condition of brain-degeneration is produced which exercises much effect upon the progress of any ailment requiring medical treatment.

The class of cases just described above occupy a sort of disputable ground, a border territory which scarcely permits of their being included in handbooks of insanity, nor yet in the ordinary systems of medicine. They are considered here amongst the aspects of ordinary disease, not as outcomes of the disease, as are the mental attitudes described in the earlier division of the paper, but rather as mental conditions, not normal nor yet insane, which exercise much influence over the progress and course of ordinary disease, when it manifests itself in the persons just described.

Finally, there is a condition of temporary evanescent brain-impairment which is produced by severe acute disease, and especially by severe attacks of fever. The mental faculties are usually somewhat impaired by severe attacks of typhoid fever, and soldiers after this fever are not put on sentry duty for months, as they are pretty certain to forget the watchword and countersign. At other times more marked impressions are made by pyretic disease, and certain acquirements are entirely lost, or the mind may even become a *tabula rasa*. Many curious instances of such effects are furnished by Abercrombie in his well-known work—"The Intellectual Powers," and by Carpenter in his recent work on "Mental Physiology." Commonly enough this passing condition of brain-impairment is followed by an accession of mental vigour, and a condition of intellectual activity which remains permanently, and exercises an excellent influence over the after life of the individual.

Remarks on some of the Large Asylums of Italy. By JOHN H. DAVIDSON, M.D. Edin., Medical Superintendent of the Cheshire Asylum.

While on a recent autumnal tour through the Italian peninsula, I availed myself of the opportunity which it afforded of visiting some of the Lunatic Asylums of that delightful and most interesting country, when I chanced to be not far from their vicinity, and made the following brief jottings :—

Asylum of Santa Maria della Pieta, Rome.

This *manicomio*—a plain, substantial stone building, with no great pretensions to architectural beauty—is situated on the Vatican side of the Tiber, adjacent to the large infirmary and foundling hospital in that locality, and is only a few minutes' drive from the Ponti di St. Angelo. Upon arriving at the Institution I was courteously received, in the absence of the physicians, by two of the *fratelli della misericordia*, several of whom are there employed in the management of the male patients. At the time of my visit the asylum contained 345 males and about the same number of females; and I was informed by the *religieux*, who conducted me over the establishment, that the medical staff consisted of a Medical Director and three assistant physicians; but from my visit being rather late in the day, I unfortunately had not the pleasure of seeing any of these gentlemen. The inmates of this asylum are of all social grades, and are divided into three classes—first, second, and third—the first paying 250 lire a month, but I now forget the amount charged for the maintenance of those belonging to the second and third. The dormitories and single rooms were large, well ventilated, and irreproachably clean, and, in fact, everything appeared to be in excellent order; but the amount of mechanical restraint I witnessed far exceeded my anticipation. I had ocular evidence of the fact of its being more liberally used here than in any of the asylums I had previously and have since visited in France, Germany, Belgium, Switzerland, Austria, and Hungary. The *camiciola di forza*, coercion chair, leathern muff, and *entraves* were in full use, while numbers were tightly tied or strapped down to their beds, some of the males giving unmistakable indication of being rather ill at ease. Several of the men were engaged at the ordinary trades and in the

garden, from which a delightful view of the city and neighbouring country is obtained ; while some of the females were occupied in weaving and sewing. In going through the male wards I saw several engaged in pencil drawing, which seemed to be a favourite amusement. One patient presented me with his *chef d'œuvre*, a Madonna and child, in the conception of which he said he had been engaged for the long period of 3000 years ! There was little noise or excitement observable in any of the wards, and everything I must say was conducted with the greatest order and regularity. On the male division the attendants are under the control and supervision of the brothers of mercy, whose duty it is to see that the physicians' directions are all fully carried out. On the female division there are also several *religieuse* engaged, who belong to the order called the *suore di San Carlo*, and they exercise a careful supervision over the nurses and female servants. Of the zeal and energy which the *suore* as well as the *fratelli* displayed in the performance of their important duties, I carried away a very favourable impression.

The Asylum of Florence.

This asylum stands in the Via San Gallo. It is a very old building, having been founded for a general hospital as far back as the year 1387, by Bonifazio Lupi, of Parma, but for many years it has been used as a hospital for the reception of the insane. The first person who conceived the idea of founding a special *ricovero* for the mentally afflicted of Florence was the Carmelite Padre Alberto Leoni, of the Convent of Santa Maria Maggiore, whose device for such an erection was given effect to in the year 1645. He, however, died, leaving the work unfinished, but it was taken up and carried to completion by Padre Giovanni-Antonio Diciotto, a colleague of the Padre Leoni, and also a member of the Carmelite order. There thus sprung up in the Via Ghibellina al Canto alla Melo, Florence, a little asylum which was regarded as the second in Italy, that of Santa Maria della Pieta in Rome having been founded towards the close of the year 1518. It was managed by twelve lay gentlemen, and received, with few exceptions, only those who could pay the rate fixed for the treatment they received, the indigent insane continuing for some years to be kept in strict quarters in the *pazzzeria* of the hospital of Santa Maria Nuova. The present Florentine Asylum contains 600 patients, and is under

the able superintendence of Professor Bini, who is assisted by a resident deputy Director, and four other medical gentlemen. Dr. Bini, in addition to his duties as Medical Superintendent, delivers at the asylum a course of lectures on mental and nervous diseases, for which he receives a honorarium of 1,000 lire in addition to his salary of 5,000 lire per annum. The internal arrangements of this Asylum are much the same as those of the Asylum at Rome, but at the time of my visit some structural improvements were in progress. Many of the common trades are followed: I, however, could not fail to observe that here, as in the other Italian Asylums I visited, the means of out-door occupation is very limited, there being only a small patch of garden land of about a couple of acres in extent attached to the Institution. As to the mode of discharge here practised, I may remark that when the Medical Director considers a patient in a fit state to leave the Asylum, he writes to the Procuratore del Re, informing him of the fact, whereupon, application is made, by the latter, to the *Tribunale* (a court consisting of three Judges), and a decree ordering the patient's liberation is forthwith obtained. Dr. Bini speaks very highly of this judicial mode of discharge, as he is thereby saved from much importunity and annoyance. First class patients pay 3 lire per diem, second class 2 lire, and third class 1 lira 60 centesimi. The pay of good male attendants is 68 lire a month, without board, and that of the female attendants is 43 lire. Here there are no special night attendants, but a certain number of the staff take night duty in rotation. On inquiry as to the ratio of cures, I was informed that calculating on the admissions, the recoveries gave a per-centage of about 38; while the proportion of deaths, reckoned on the total number under treatment, amounted to rather more than 12 per cent. It appears that marasmus and diarrhœa are the most frequent causes of death in this Institution, 30 per cent. being often due to these alone; while the proportion from congestion of the brain and serous and sanguineous apoplexy is frequently 20 per cent. To phthisis pulmonalis 8 per cent. are not unfrequently due, while 6 per 100 is sometimes the proportion ascribed to cancer. In cases where forced alimentation is necessary the nasal tube is preferred. My attention was directed to a patient who had refused food for three months, and who was being fed three times a day through the nose. I was also informed that a patient in this Asylum had been

fed by the nasal tube for the long period of thirty-five months.

The Asylum of San Servolo, Venice.

This asylum is situate on a little island of the same name, near Venice, and has fulfilled the functions of a hospital for the insane since 1715. After sundry alterations it became the central male and female asylum for the Venetian provinces, in the year 1797, but in 1833 it was used exclusively for the treatment of patients of the male sex. An asylum for females has, however, been recently erected in the lagoon, not far from San Servolo, and at the time of my visit was expected to be ready in a few months for the reception of patients. It can be easily reached by gondola in five or ten minutes, either from the town or the male asylum. On my gondola reaching the San Servolo, I was respectfully received by one of the employés and conducted to the reception room to await the coming of the director. Upon the wall of this chamber there was an intimation to the effect that all visits to the asylum for philanthropic motives, or for scientific purposes, were cordially welcomed, but such as were made out of mere curiosity were not by any means looked upon with favour. I had not to remain long before the arrival of the Medical Director, Dr. Salerio, and one of his assistants, who both gave me a hearty greeting. In the medical and moral treatment of the patients Dr. Salerio is zealously assisted by four physicians who, together with himself, belong to a religious order called the *Fate-Bene-Fratelli*, and none of these gentlemen, I was told, receive any pecuniary reward for their services, which they freely give out of charity. On going through the several *riparti* of this institution, which has accommodation for about 500 patients, my attention was arrested by the uncommon height of the bedsteads, and remarked that they appeared to me to be rather dangerous for epileptics, should they unfortunately fall out of bed in a fit. This observation elicited the reply that such an occurrence could not take place as patients of this class when in bed are securely tied so as to guard against this and other possible mishaps. The means of amusement I saw consisted of cards, dominoes, the megalithoscope, and a good library. Musical entertainments also take place twice a week, but during the carnival time these are more frequent and prolonged. There being no space for airing courts—the waters of the Adriatic coming close up to the building—the *passeggio* is the only place for

exercise. But there is a small garden plot to which the patients can resort to smoke. The attendants here are considered to be liberally remunerated, having 45 lire a month, with board, but they are of necessity obliged to lead a very isolated life. Four of them are always on duty at night. The hydro-therapeutic treatment being regarded as one of the most efficacious remedies, the baths and bathing arrangements of this asylum are admirable, and a plentiful supply of both fresh and salt water can always be obtained. No bath is given to a patient but by medical order, and this work is always performed under the personal direction of the doctor. Wet packing is frequently adopted, being considered highly beneficial in cases of melancholia and dementia, as well as among the *pellagrosi*. In going through the asylum I was very forcibly struck with the large number who suffered from pellagra, which, I was given to understand, is the most frequent cause of insanity in the patients brought to this asylum. These pellagrous cases have all an anxious, timid, dull, melancholic look, and for the most part belong to the agricultural class. Before being brought to the asylum they have generally undergone great misery and hardships, and suffered from insufficiency of food. The *pellagrosi* are looked upon by many as very prone to commit suicide; but Dr. Salerio informed me that among the large number in San Servolo, there were comparatively few who exhibited this tendency. He also stated that they, of all others, are the patients who derive most benefit from the bath, but who shew the greatest dislike to it. Arsenic, the warm bath, and a generous diet is considered the best treatment for this disease. The asylum also contains a large number of general paralytics and epileptics, the former being most frequently brought for treatment when in an advanced stage of the disease. The Medical Director observed, with regard to the subjects of progressive paralysis, that they were almost all habitually great smokers of tobacco. As regards the causes of death in this asylum, I would remark that general paralysis is the greatest, next comes marasmus, then phthisis pulmonalis, pellagrous marasmus, and epilepsy. Not more than five or six patients wore the *camiciola*, or were restrained by the *centurone di "Haslam."* Indeed the patients here appeared to me to enjoy a greater amount of liberty than those in any of the other institutions I visited, and they were evidently all well cared for by the kind-hearted medical superintendent and his colleagues.

La Senavra, Milan.

This building is within a mile of the city, and is about 125 years old. It was originally a Jesuit convent. As at Rome, my visit was made about mid-day, and consequently I had not the pleasure and advantage of finding any of the medical officers. I, however, was kindly received by the Secretary and the Inspector, and the latter conducted me over the whole establishment. This asylum contains between five and six hundred patients, and its medical staff consists of a Medical Director and four other physicians. The Inspector informed me that the Director, Dr. Castiglioni, had been dead for some months prior to my visit, and that a successor had not been appointed. Not having seen any of the medical officers I was, of course, unable to obtain much desirable information regarding the treatment pursued. The Inspector, however, stated that the prolonged warm bath, with cold embrocations to the head, was considered a great remedy, and very frequently had recourse to. Although the building is large and capacious, I thought the dormitories and corridors gloomy and sombre. In some of the wards there was much noise and turbulence, and it was in this asylum that restraint appeared to me in the most repulsive form—numbers of the patients of both sexes being confined to the disgusting restraint chairs, while not a few were strapped up to the walls of the corridors and dormitories; the very *pots de chambre* were secured to the bedsteads by means of leathern belts of about three or four feet in length. I must, however, state that I was much pleased with the cleanliness everywhere visible. The beds and bedding especially were remarkably good and scrupulously clean. In connection with the Senavra there is the *succursale* of Mombello, some few miles from Milan; it is said to be a model institution, and that its surroundings are exceedingly beautiful and pleasant. I, however, had not sufficient time to visit it.

In closing these short desultory remarks upon the above asylums, I have only further to observe that the windows of all of them are either barred or grated. But as it is the custom, more or less, throughout Italy to have the windows of private dwellings and even of palatial residences so protected, the construction of the asylum windows in the way mentioned can only be regarded as a fashion rather than a means devised to guard against escape.

CLINICAL NOTES AND CASES.

Hydrophobic Melancholia. By THOMAS ANDERSON, M.B.,
Medical Superintendent, Midlothian Asylum, Roslin.

It is my object in drawing attention to this case to point out that, besides true rabies and false rabies, a third class of cases exists, which owe their origin to similar causes, but have a different termination. They support an explanation of the whole series in accordance with modern theories of nerve action, which the other diseases, taken separately or collectively, do not demonstrate so closely.

While the bite of a dog is nominally the exciting cause in all these cases, they differ principally in their course, and especially in their mode of termination.

In true hydrophobia as it occurs in man, the diagnostic point of the greatest value is the fatal result which attends its development.

In false rabies the symptoms vary much, but speedy recovery is pathognomic of this disease.

The third class of cases connects the two previous disorders, and bears a close relationship to insanity, more particularly melancholia.

By this arrangement I do not mean to assert that an animal poison does not exist in rabies distinguishing it from the other groups, but rather that the poison is a subsidiary phenomenon, since the disease cannot, on extended examination of the symptoms and pathological appearances, be allowed to occupy its usual place, that is, in proximity to glanders and snake poisoning, which it principally does on etiological grounds, from the supposed origin in the inoculation of this poison.

The experiments of Hertzig, Magendie, and Troilet are supposed to have determined the identity of the poison finally; but even admitting such, to come to a true system of treatment we must know its mode of affecting the system.

It certainly does not infect the system as glanders or snake poison, since the blood-vessels and lymphatics are not involved. But the peculiarity of fever poisons in requiring a period of incubation is made to give an explanation of an otherwise inexplicable phenomenon. Fevers, however, have always a definite period of latency, as if the change consisted

in some physical or chemical transformation, which required a certain time to be accomplished.

It is not possible to apply this theory of blood change to hydrophobia, as the period varies beyond all limits, from a few days to several years.

I incline much more readily to a recent theory which regards this disease as allied to tetanus and infantile convulsions. This has the merit of endeavouring to establish a comparison with diseases to which it has a close resemblance throughout its course, if not indeed in its manner of origin.

It also brings to aid in the explanation of the phenomena, the laws of action and degeneration of the nervous system, and so puts it close to the more familiar form of mental disease witnessed in asylums.

Traumatic tetanus and infantile convulsions can be shown experimentally to depend on external sources of irritation, the removal of the broken glass or the lancing the irritating gum curing the irritation, &c.

A similar mode of treatment is pursued in hydrophobia apparently with good effect. That is by excision of the cut surface of the wound and division of the nerves. While the extent to which the nervous system is involved is very striking;—shooting pain in the part, and along the nerve, hyperesthesia of the eighth nerve and its branches, of the special senses, and often of the whole body. The convulsions, the gloomy terror which shews itself very early by unmistakeable signs, and the irritability and paroxysms of fury, sometimes with delirium, and often with delusions, all tend to stamp it as a disease of the nervous system essentially. While thus claiming for hydrophobia an excentric source of irritation, from whatever cause, centric changes must have preceded, which of themselves render it capable of acting in a reflex manner; for the inequality of the development of rabies is regulated by the presence of depressing emotions and enfeebling bodily conditions.

When, therefore, centric changes are so closely associated with this disease, the conclusion is obvious that they may without any such cause occur primarily, and so resemble in a greater or less degree cases of idiopathic tetanus.

In analysing cases of rabies true and false, it requires to be noted specially that the symptoms are not always the same, groups of organs being more affected in one case than another; this being itself a strong argument in favour of centric degeneration.

In the dog the changes are almost entirely mental; in man, the difficulty of swallowing, or hyperæsthesia of the nerves of the throat, is most marked, exciting the paroxysms. The special senses and skin are, however, often equally and sometimes more sensitive, while in all cases the mental changes vary much. This is specially the case in false rabies.

Chomel gives cases of physicians who found difficulty in swallowing after dissecting patients who died of hydrophobia. Trousseau also gives many interesting cases, and Tuke, in his "Influence of Mind on Body," gives a remarkable series of cases, illustrating in a very lucid manner the action of the ideational centres on the sensori-motor. Chomel regards all the cases of old standing as idiopathic. Pinel records a case of pure idiopathic hydrophobia in a soldier, in whom no evidence of bite could be ascertained; and Copland refers to other cases of a similar kind, though he thinks little of such cases. Healthy dogs have sometimes given rise to hydrophobia which proved fatal. This makes it obvious that the explanation of this group of diseases can be most successfully attempted in accordance with the modern doctrines of the action of the nervous system. The further elucidation of this idea will be taken up after reading the details of this case.

JEMIMA S—, labourer, single, admitted 25th November, 1873, aged 35 years.

Previous History.—Her family history is healthy, with the exception that her father is somewhat drunken in his habits. She enjoyed good health up to about 11 years ago, when the birth of an illegitimate child caused a shock to her nervous system, from which she has never completely rallied.

About three years ago she received a second severe fright, owing to her child, to whom she was very fondly attached, having fallen and sustained an extensive wound which denuded his skull of a large portion of the scalp.

After this she had attacks of restlessness, and was at times unable to sleep, and these were worst in the spring of each year. But they were of a temporary character, and did not alarm her relatives as to her mental soundness.

On the 3rd August, 1873, she happened to approach near a dog of a ferocious disposition, used as a watch dog. It was on the chain. It attacked her, and inflicted a wound $1\frac{1}{4}$ inches in length on the right hip. This caused much alarm in her mind at the time from the known ferocity of the animal, and people told her that August was one of the worst months to get bitten in. The wound healed slowly by suppur-

tion, and it was only at the end of a month that she was able to walk about. She states that she still felt lame. She again attempted to resume her employment, but was unable to do so.

She could not fix her mind on any definite pursuit. She became very low spirited, and could not sleep. The thought that no caustic or incision had been employed on the bite preyed on her mind. This gradually became more deeply impressed on her. She became convinced that she could not live. The idea was present in her mind always that she was to die. She became more unmanageable from violent paroxysms, and a tendency to suicide, and was brought to the asylum on the 25th November, 1873.

State on Admission.—The general condition of the body is thin and emaciated. There is a slight scar, one inch in length, on the right hip. The skin is harsh and dry. Common sensation, as well as that of pain, is much impaired. She permits herself to be pinched without evincing any feeling of pain, and states that she thinks she could allow her legs to be cut off.

She lies at present in bed. Her eyes are closed. The conjunctivæ are suffused, as if she had been weeping. The brows are knit. The facial muscles of expression are relaxed. The face and lips are pale, and the aspect is one of extreme fear. She answers questions readily, maintains that she is not insane, and evinces considerable intelligence. She maintains that her trouble is incurable, and that she would like to die. That the entire cause of her illness was the bite of the dog. Her terror is increased if she sees a dog, and she abstains from food, and refuses to be bathed; the idea of a bath causes her much pain. She complains of pain in the vertex and neck, and grasps her neck occasionally with both hands, trying to strangle herself. If left alone she gets out of bed, and hides in some recess, and twists portions of her sheet round her neck, and resorts to other practices if possible to injure herself. She has paroxysms of extreme fury, in which she gets out of bed and rushes about, requiring several attendants to keep her in order.

She refuses food. The tongue is furred. The bowels are costive. The pulse 76 in the minute, and very weak. The respirations 20 in the minute. The temperature 97°. Catamenia absent. The other systems are normal.

After the two first days no difficulty was experienced in causing her to swallow her food. The treatment pursued was rest in bed, nutrients and stimulants, and the avoidance of all sources of excitement.

The wound was cauterised, more, if possible, to allay her dread than effect anything else, and this gave her mind considerable relief. She still, however, manifested a strong suicidal tendency and furious outbursts of restlessness and emotional excitement, requiring the presence of several attendants by her bedside constantly. It was then determined to put her under the influence of hydrate of chloral, which was given three times daily after food, combined with a small quantity of

morphia. This acted very well, and produced sleep between meals. She was generally able to wake up when her food arrived, and after it was taken, it served the double purpose of producing sleep and strengthening the system against the depressing effects of the chloral. This was pursued for a week with great benefit.

The subsequent history of the case may be told in a few words.

She remained in bed for about three months. She took her food well, and slept the greater portion of her time. Her nervous apprehensions gradually became dissipated, though she had monthly exacerbations of the attack. In these a prominent symptom was that she would start up out of her sleep, imagining that the dog was attacking her, and this idea could not be got rid of for some time. She still remains in the house. Menstruation has been established. She is free from her former apprehensions, and is gradually improving in tone of mind and bodily energy.

From whatever point of view the above case be regarded, when compared with other cases, the dependence and connection of the nervous symptoms on physical states is worthy of attention. We have a system predisposed by heredity, and previously prepared by a succession of severe mental shocks.

The bite of a dog and the dread of hydrophobia end, not as in false rabies by the cessation of the symptoms only, but proceed to actual mental disease, which in its early stages presents symptoms so close to true rabies in man, that they can be distinguished with difficulty. The difference between them is indeed so small that the theory of centric origin in all cases is far from improbable. The exacerbations connected with the menstrual nisis, and the recurrence of the imaginary attacks of the dog at these periods, are interesting when we consider that the emotional conditions connected with the sexual system sustained a shock previously.

How far it may be assisted by any external irritation is a matter of speculation only.

But before finishing these remarks, I wish for a moment to draw attention to the close approximation which we find in many forms of disease to the symptoms of rabies, or groups of them in different stages of development, in order that explanation of the phenomena may be attempted on the laws of nervous action rather than upon obscure and ill-defined theories of latency and blood poison.

In hysteria a difficulty of swallowing and spasmodic affections of the neck are frequent. A dread of water occurs as a symptom in insanity, especially in melancholia, and is often met with in asylums. They refuse to take the usual baths, and do so from a distinct horror of water.

But that period of the disease in which mental aberration is established is particularly interesting when taken in connection with cases which must owe their origin to disease of the same centres.

The irritability is one of the most constant of the symptoms, and also the extreme fear; but when delusions present themselves the patient acts as if he were a dog, or imagines that he is struggling and contending with dogs or wolves. We have here a condition which, from the part of the nervous system diseased, is akin to cases which occur sometimes now-a-days in asylums. Brierre de Boismont, in his treatise on the hallucinations, relates a case of this kind, and refers to one in which a patient died struggling with an imaginary wolf.

Lycanthropy is closely connected with this state. Dr. W. A. F. Browne records in the 9th Annual Report of the Crichton Royal Institution a case of this kind, where a girl stating that a mad dog had bitten her, came to record herself as a dog, and to bark and howl like one. The transformation of gods and men into imaginary animals is a common circumstance in classic lore. Jupiter changed himself into a bull; Actæon became a stag; Hecuba a bitch; the comrades of Ulysses swine. The pasture lands and woods of Arcadia were the chief seat of Lycanthropy, and half the world still believes in the weir-wolves of the Scandinavian forests.

The epidemics of Lycanthropia which occurred in the middle ages may be referred to the same class of cases. They are all closely allied, and consist in centric disease of certain portions of the Encephalon, which takes its origin from external irritation, as in rabies, connected with depressing mental emotions, as in false rabies. It may, again, lead to true insanity, as in the case before us, or this condition, arising from any of the above sources, may become epidemic, as in lycanthropia, as previously alluded to.

On the use of Veratrum Viride in certain forms of Insanity.

By DR. HILLS, Medical Superintendent Norfolk County Asylum.

Hellebore is a remedy of great antiquity, and Hippocrates was evidently aware of its sedative properties, for in his aphorisms, he says: "When anyone has drunk hellebore, he must have recourse to movement rather than to quiescence and sleep."

A year ago white hellebore was much used in certain nervous affections, such as mania, epilepsy, &c. At the present day green hellebore is much extolled by American physicians as a valuable substitute for bleeding in inflammations. Austen Flint says, "Like aconite, it lessens the force and frequency of the heart's action, and produces all the good effects of venesection, without impoverishing the blood. There is no doubt it also acts as a sedative on the nervous system." Garrod Ringer and Neligan admit this. Neligan says, "It has a sedative influence upon the nervous system, and can be employed for an indefinite period with safety, and if suspended its effects speedily subside. It is prompt and sure in its action, and is not cumulative."

It should be given in the form of tincture, and in doses of *mx bis vel ter die*. After a year's trial of it, and in a considerable number of cases, I am convinced of its efficacy in certain forms of insanity, especially when occurring in females; the patients most benefited being those who are noisy, violent, and destructive, labouring under chronic and recurrent mania; in them the pulse is lessened in force and frequency, and the nervous system tranquillised. I have never seen any ill effects from its use beyond slight and transient sickness. Some patients tolerate 30 minim doses, others can't bear 20, and some few, after taking it for weeks, are not in any way affected by it. Of course I lay no claim to the discovery of a new remedy, but experience has convinced me that in *Veratrum Viride* we have a most potent, certain, and efficacious remedy for some very troublesome cases occurring in asylum practice, and that this drug ought to be rescued from the oblivion into which it has so undeservedly and unaccountably fallen.

Asylum Notes. By JAMES MACLAREN, L.R.C.S., and JOSEPH J. BROWN, M.B., Assistant Physicians Royal Edinburgh Asylum.

Extravagant delusions are certainly not among the rarities of asylum life, and the experienced alienist is seldom astonished at the most remarkable statements made to him by his patients. Now and then, however, cases are met with where the mental condition indicated by the delusions expressed is so peculiar and so far removed from any of the ordinary classifications of insanity as to be worth noting.

There is at present in the Edinburgh Royal Asylum a

general paralytic, who displays a singular dual consciousness. He is in the second stage of general paralysis, and has the characteristic delusions of grandeur. He thinks himself King of the City of Edinburgh, King of Scotland, King of Kings, &c., &c., and is lavish of documents, presenting his friends with millions of money. No one listening to him can doubt that he thoroughly believes in his own position and wealth, but the curious part of his mental state is this. Before he came to the asylum he had the sum of £1 invested in a savings bank, and the interest on this £1 up to a few months ago was 3s. 4d. Now these two sums—the real £1 3s. 4d. in the savings bank and the supposed £26,700,000 in the bank of Scotland—he always keeps perfectly distinct. He never adds the one to the other or mixes them in any way, and though he is always willing to give a cheque on the Bank of Scotland for any amount, he declines to part with a penny of the sum in the savings bank. Another curious fact is that he often calculates the interest of his imagined wealth, doing so at 25 per cent., but always makes an incoherent mess of it, while the interest on the real property he calculates at 5 per cent., and knows to a halfpenny how much is due to him.

A father and daughter, inmates of the asylum, present a curious coincidence of delusions. The father has the monomania that he is a royal personage, viz., King of the Nation, and married to the Queen, while the daughter thinks she is of royal family and a princess. This, on her part, seems natural enough; the daughter of royal parents ought to be a princess. But the odd part of the matter is that neither derive their delusion from the other except in so far that heredity has transmitted insanity to the daughter. He quite understands that his daughter is insane and a pauper, while she knows perfectly that her father is a blacksmith with an insane delusion. If she took her rank from her father's position as King of the Nation, and if he thought his children the offspring of royalty, there would be a certain coherence, so to speak, in their insanity; as it is, however, what we have stated regarding their mental characteristics and their respective views of their relative positions presents rather a puzzling study for the psychologist.

Delusions regarding change of sex are rare. We have lately seen a woman who believes herself Jesus Christ—a curious delusion, implying both a belief in a change of sex and of position in life.

Cases of suicidal impulse often present curious character-

istics. When such cases are associated with melancholia or with delusions, they present a class which, though most difficult to treat, and causing the greatest anxiety to all connected with them, do not offer anything very remarkable or rare in their characteristics. Sometimes, however, cases are met with where, without melancholia and with no ascertainable delusions, the desire to commit suicide exists as a thing *per se*.

We have recently had occasion to note this condition in the case of two ladies. Both of them are possessed of superior intelligence, have great capacity for enjoying life, and adding to the enjoyment of others, and both of them have kind and affectionate friends and comfortable homes. Yet with all this they are each possessed with the strongest desire to be out of the world. There is no melancholia in either case, unless indeed the state of mind itself might be termed a variety of it; but at any rate there is no depression of spirits in the ordinary sense of the term. On the contrary, with the exception of occasional slight attacks of irritability, certainly not greater in degree than is compatible with sound mental health, they are perfectly cheerful, and as happy as the majority of their sane sisters and brethren. Yet, in one of them especially, at no time is the thought of self-destruction absent. She will be as merry as possible one moment, and the next, if the attendant's eye is off her, will be nearly out of the first open window she can get to, or trying to secrete some weapon with which she could accomplish her purpose at greater leisure.

There is one other feature of her case worth noting, namely, the transmission of a neurosis to her children. She herself is of course insane, and her husband is a drunkard. They have had eleven children (all before the mother became insane), eight of whom died in early years, and all of head affections of some kind or another. The other lady mentioned is young and unmarried. A cheerful, happy girl, much liked by all who know her, and in excellent physical health. About a year ago, with no predisposing or exciting cause that can be ascertained, she became strongly anxious to make away with herself. She bought small quantities of laudanum, which she secreted till she thought she had enough, and drank it. Failing thus, she then attempted to strangle herself, and when she did not succeed endeavoured to open a blood vessel in her arm with the only weapon left her by her careful relatives—a darning needle. All her attempts proving futile she refused her food, and had to be

fed with the stomach pump. Now during the whole time of her illness she had no delusions, and slight, if any depression. She has often lately assured us that she was quite unable to account for her mental condition, that she had no reason to be dissatisfied with her lot in life, on the contrary was indulged beyond other members of her family, and yet her desire to be out of the world was perfectly uncontrollable.

Both ladies seem now recovering somewhat, but their cases present a puzzling study for their physician. When the only manifestation of the suicidal tendency is the actual attempt at self-destruction, and where there are no other indications except those of sanity, constant care and supervision can hardly ever be dispensed with.

OCCASIONAL NOTES OF THE QUARTER.

Hitherto and no Farther.

Most of our readers are doubtless aware that at the Annual Meeting of the British Medical Association each year, it is the custom to have an address in Medicine, and another in Surgery, delivered: the one by an eminent physician, and the other by an eminent surgeon, who have been selected for the duty. At the meeting which was held this year, in Norwich, the address in medicine was given by Dr. Reynolds, who had evidently bestowed great and conscientious pains on the preparation of an elaborate essay, which should be worthy of the occasion and of the audience. We confess to having read this address with some feeling of disappointment, indeed with a stronger feeling of surprise: disappointment at its vague and discursive treatment of subjects too vast to be fairly dealt with within the limit of time which the occasion imposed; surprise at the mental attitude of the author, as a scientific physician, in relation to the subjects which he touched upon in a somewhat *dilettante* fashion. While pointing out that many processes and phenomena which were formerly held to be among the "sacred mysteries of life" have been shown to be facts of chemistry and physics, Dr. Reynolds is, nevertheless, sorely troubled at the tendency which is evinced at the present day to decompose, explain away, or get rid somehow of the great mystery of life—"the

abiding mystery," "the mystery of mysteries," as he calls it, "that underlies all our knowing, and overarches us with sometimes an abyss of light, sometimes with an impenetrable gloom." He is troubled at the continuing operation of the tendency which has done so much for us in the past; would say unto it, "Hitherto shalt thou come and no farther;" would bid the worker, at the point which he has now reached, to put off his scientific shoes from off his feet, for the place whereon he stands is holy ground; would devoutly enjoin upon all men "to acknowledge its mystery, bowing ourselves down before the enigma of its origin, and reverently humbling ourselves in face of its unsearchable but wonder-teeming end!" That is the attitude of prostrate humility which the worker in science is solemnly enjoined to take in the latter part of the nineteenth century. Had it been counsel given to the Emanuel Young Men's Mutual Improvement Society in connection with Bethesda Chapel, or some similar body, we should not have been so much surprised, however little we might have admired it, but that it should have been seriously addressed to the members of the British Medical Association in this day and generation is certainly a little startling and not a little humiliating. Let us contrast it with an extract from the manly and vigorous address of Prof. Huxley to the British Association, delivered in the same month. Speaking of the sixteenth century, or rather of the early part of it, as one of the great epochs in biological science, he says:—

It was at that time that an idea which had been dimly advocated previously took the solid form which can only be given to scientific ideas by the definite observation of fact—I mean the idea that vital phenomena, like all other phenomena of the physical world, are capable of mechanical explanation, that they are reducible to law and order, and that the study of biology, in the long run, is an application of the great sciences of physics and chemistry. The man to whom we are indebted for first bringing that idea into a plain and tangible shape, I am proud to say, was an Englishman, William Harvey.

And he goes on to show how a great contemporary of Harvey—René Descartes—played a part in relation to the phenomena of the nervous system, which is precisely equal in value to that which Harvey played in regard to the circulation of the blood. In all our present notions of the operations of nerves, Prof. Huxley says, we are building upon Descartes' foundation. He laid down distinctly the proposition that when a body which is competent to produce a sen-

sation touches the sensory organs, what happens is the production of a mode of motion in the sensory nerves, and that this motion may be transferred to the muscles, so that a movement is effected without sensation, and not only without volition, but even contrary to it. In no modern treatise can a more clear and precise statement, or a more perfect illustration of what we understand by the automatic action of the brain be found than is given by Descartes, who actually uses the term reflected (*sicut undulatione reflexâ*, as Willis, borrowing the phrase from him, has it) in speaking of the reflection of a sensory movement into a motor motion. He instances walking, singing, and other similar actions as being performed even in those who are awake, without the mind thinking about them. "And when one who falls from a height throws his hands forward to save his head, it is in virtue of no ratiocination that he performs this action; it does not depend upon his mind, but takes place merely because his senses, being affected by the present danger, cause some change in his brain, which determine the animal spirits to pass thence into the nerve in such a manner as is required to produce this motion in the same way as a machine, and without the mind being able to hinder it." The last great service which Prof. Huxley declares that Descartes rendered to the physiology of the nervous system, was that he first sketched out the physical theory of memory. His theory is essentially in substance at one with our present physical theories of memory. Mr. Huxley says:—

That memory is a physical process stands beyond question. The results of the study of disease, the results of the action of poisonous substances, all conclusively point to the fact that memory is inseparably connected with the integrity of certain material parts of the brain dependent upon them, and I know no hypothesis by which this is accounted for except by some idea, which is essentially similar to the notion of Descartes, a notion that the impression once made makes subsequent impressions easier.

In his further exposition of the services which Descartes rendered to the physiology of the nervous system, for the description of which we must refer our readers to Prof. Huxley's address, he relates from the scientific article in the *Journal des Débats* the following instructive case:—

A French soldier, a sergeant, was wounded at the battle of Bazeilles, one, as you recollect, of the most fiercely contested battles of the late war. The man was shot in what we call the left parietal bone. The bullet, I presume, glanced off, but it fractured the bone. He had

enough vigour left to send his bayonet through the Prussian who shot him. Then he wandered a few hundred yards out of the village, where he was picked up and taken to the hospital, where he remained some time. When he came to himself, as usual in such cases of injury, he was paralysed on the opposite side of the body, that is to say the right arm and the right leg were completely paralysed. That state of things lasted, I think, the better part of two years, but sooner or later he recovered from it, and now he is able to walk about with activity, and only by careful measurement can any difference between the two sides of his body be ascertained. The inquiry, the main results of which I shall give you, is conducted by exceedingly competent persons, and they report that at present this man lives two lives, a normal life and an abnormal life. In his normal life he is perfectly well, cheerful, and a capital hospital attendant, does all his work well, and is a respectable, well-conducted man. That normal life lasts for about seven-and-twenty days, or thereabouts, out of every month; but for a day or two in each month—generally at intervals of about that time—he passes into another life, suddenly and without any warning or intimation. In this life he is still active, goes about just as usual, and is to all appearance just the same man as before, goes to bed and undresses himself, gets up, makes his cigarette, and smokes it, and eats and drinks. But in this condition he neither sees, nor hears, nor tastes, nor smells, nor is he conscious of anything whatever, and has only one sense-organ in a state of activity, viz., that of touch, which is exceedingly delicate. If you put an obstacle in his way, he knocks against it, feels it, and goes to the one side; if you push him in any direction he goes straight on, illustrating, as well as he can, the first law of motion. You see I have said he makes his cigarettes, but you may make his tobacco of shavings or of anything else you like, and still he will go on making his cigarettes as usual. His action is purely mechanical, as I said; he feeds voraciously, but whether you give him aloes or assafoetida, or the nicest thing possible, it is all the same to him. He is just like my frog, he goes on feeding. The man is in a condition absolutely parallel to that of the frog I have just described, and no doubt, when he is in this condition, the functions of his cerebral hemisphere are at any rate largely annihilated. He is very nearly—I do not say wholly, but very nearly—in the condition of an animal in which the cerebral hemispheres are not entirely extinguished, but very largely changed. And his state is wonderfully interesting to me, for it bears on the phenomena of mesmerism, of which I saw a good deal when I was a young man. In this state he is capable of performing all sorts of actions on mere suggestions; as, for example, he dropped his cane, and a person near him put it into his hand, and the feeling of the end of the cane evidently produced in him those molecular changes of the brain which, had he possessed consciousness, would have given rise to the idea of his rifle; for he threw himself on his face, began feeling about for his cartouche, went

through the motions of touching his gun, and shouted out to an imaginary comrade, "Here they are, a score of them; but we will give a good account of them." This paper to which I refer is one of the most remarkable examples of this kind, and what is the most remarkable fact of all is the modifications which this injury has made in the man's moral nature. In his normal life he is one of the most upright and honest of men. In his abnormal state, however, he is an inveterate thief. He will steal everything he can lay his hands upon; and if he cannot steal anything else, he will steal his own things and hide them away.

But let us return for a moment to Dr. Reynolds' address, in order to make another quotation from it, merely noting the contrast between its spirit and that displayed by one so well qualified as Prof. Huxley to tell us what has been, and is, and must be, the true spirit of biological science. Dr. Reynolds is not only troubled at the evil disposition which science shows to refuse to prostrate itself before the sacred mystery of life, as would be becoming for it, but he is also troubled at the tendency which he thinks he discerns in it at the present day to disregard the essential peculiarity of man, to reduce him to the level of "the beasts that perish," to see nothing distinctive in human life; "nothing which cannot be explained, in physical function, by reference to the lower forms of animal existence; and nothing in the mental and moral history of ourselves which cannot be referred to analogous processes of material change." For himself, he must protest against this view, and would have us, "poised between two worlds," with "no glimmer of the unseen things that sever them," "to thank God that we are not left alone, and that in such darkness there often arises light." When troubled with the surrounding mystery, when "sore let and hindered" (not "sorely let and hindered," as Dr. Reynolds misquotes it) in our career, we find a light in our own consciousness, which—does we cannot exactly make out what, but at any rate puts all things right, and establishes man upon his pedestal, "poised between two worlds." Dr. Reynolds' position would have been much stronger than it is if he had really based it upon this light of consciousness in a clear and definite manner. But when he rests this distinction between man and animals upon the privilege which man has of going mad, which he says the animals have not, he seems to us to have rashly descended from his fastness on the hill, and to have delivered himself and his cause into the hands of the enemy. He says—

Something very like epilepsy occurs in dogs, in horses, and in domesticated birds, and it may be artificially produced in the rodentia. Something very like the stupidity and waywardness of man may be seen in our domesticated friends; they exhibit sometimes, as has been said, "a disobedience almost human;" but the curious and complicated phenomena of insanity have never, so far as I know, been observed in the lower animals. We may see in them the delirium of fever, the hallucinations of commencing rabies, the irritability of advancing years or of premature decay, the outcome of forced luxuriance that antedates the fretfulness of age; we may find them stupid and long-lived, or precocious, clever, affectionate, impulsive, and so possessed of faculties that would make us apply to them, and in an enlarged sense, the old adage, that "those whom the gods (and not only the gods, but men) love die young;" we see them weakened in body and in mind; but we do not see in them "insanity"—*i. e.*, in any of the more striking forms in which it presents itself to the physician, whose business it is to deal with human beings. This distinction seems to me of great value when we are attempting to show the difference between man and those creatures to which we may bear the closest physical and intellectual relationship.

If Dr. Reynolds' other distinctions between man and the beasts that perish are of no greater weight than this, we fear that it will go hard with man's privileges. It is many years ago now since a French author wrote a book upon the insanity of animals. Of course neither he nor anyone else supposes that when an animal goes mad it has the delusion that its soul is lost for ever, or the delusion that it is persecuted by electricity, or the delusion that it is Jesus Christ, or any similar delusion which is the morbid outcome of a certain mental culture, but we do not suppose that Dr. Reynolds would find that the insanity of the native Australian, or of the Bushman, or of the Dyoor or the Bongo of Central Africa, developed itself in any of these forms. The character of the insanity will testify to the character of the individual's mental development. When an infant or young child is insane the phenomena which it exhibits are not very unlike those of an insane animal.

If Dr. Reynolds' protest was really intended to be against the application of the doctrine of evolution to the study of mental and bodily development of man, assuredly he did not lack courage, although he would have shown better discretion and judgment in withholding it; for it is no discredit to him to believe that on such a question he is not qualified to speak with the authority of Darwin, or Huxley, or Spencer. The more the pity, therefore, that he ventured to express his feel-

ings on a subject concerning which he could not speak with any authority. If it was merely a protest against the opinion that man differs not at all from the animal, it was perfectly needless, seeing that no one, so far as we know, holds now, or ever did hold, such an absurd opinion. It is certain not to be so understood. As it stands, it is not exempt from the charge of being a covert and an unfitting appeal to the prejudices of ignorance and bigotry, unworthy of the occasion and of the audience from which it derived all its importance. Its condemnation will be the applause of those who receive it with joy and thanksgiving. Dr. Reynolds too, on reflection, may perhaps come to see that in conjuring biological science to stay its course at his bidding, he has put himself in a somewhat ludicrous position.

The Broadmoor Criminal Lunatic Asylum.

A perusal of Dr. Orange's instructive report of this asylum, leaves on the mind a vivid idea of the dangerous beings with whom he has to deal. Looking to the history and character of some of the treacherous and explosive compounds of badness and madness who are confined in it, we think there must be great joy indeed in heaven over ~~one~~ those sinners that repenteth. Not that they are all equally bad. Dr. Orange points out that under the term "criminal lunatic" two very different classes of persons are comprised. One class consists of those who, having been charged with the commission of some criminal act, have, either while awaiting trial, or when arraigned, or when tried, been found to be insane; the other class consists of those who have been certified to be insane whilst undergoing penal servitude in convict prisons.

The former class consists mainly of persons whose offences have been the direct results of their insane state, and who, up to the time of the outbreak of their insanity, have in many cases led honest and industrious lives. The latter class consists chiefly of habitual criminals, whose offences against law and order are part of their everyday life, their habitual actions being anti-social. Of the 28 persons of this class transferred from convict prisons to Broadmoor, in 1873, 26 were known to have been previously convicted. These are they who are riotous and insubordinate, and who occasion the most trouble and anxiety; they are persons of criminal habits

—more criminal than lunatic—who have an inborn antipathy to order and law, and who are quite capable of combining to effect their escape; in fact, it is noteworthy that all who have at any time escaped since the opening of the asylum, and who have not been retaken, have belonged to this class. Dr. Orange's experience has convinced him that the arrangements suitable to the former class are not suitable to these insane convicts; that an asylum constructed and organised upon the plan of a county asylum affords too great facilities for combination; that the unrestricted association of the inmates leads to the corruption and still further deterioration of the younger by the older inmates; and that for their efficient control and management the existence of the means for carrying out the individual separation of the inmates is not less necessary than it has been found to be in the hospital wards of convict prisons. His conclusion is, therefore, that special arrangements should be made for this troublesome class, and that they should be separated from those who are detained during Her Majesty's pleasure, for whom the existing buildings would afford suitable accommodation. The means of their treatment should be adapted, in fact, to the element which predominates in their nature—the criminal disposition.

We have sometimes heard strong objections raised to the term "criminal lunatic," as inappropriate and unjust; it being argued that if a person is a lunatic he is not responsible for his offence against law, and is not rightly designated criminal. The words "criminal lunatic" are asserted, therefore, to be a contradiction in terms. In regard to those among Dr. Orange's patients whose offences have been purely the result of their insanity, there may be some weight in these objections; but we certainly have no sympathy with the sentiment which is hurt by the application of the word "criminal" to the members of the second class—the insane convicts. Furthermore, if a more stringent discipline is necessary in order to protect those who have the care of them from their brutality and violence, and the better disposed among themselves from the corrupting influence of the hardened and impenitent, and if some measure of actual punishment can be proved to benefit the sort of insanity under which they labour, even if only by enforcing self-control through the low motive of fear, we think that the discipline and punishment may rightly be used. Insanity is without doubt disease, but there are assuredly some forms of it among

these insane convicts which fall short of the degree of irresponsible disease, and for such forms the most scientific and humane treatment is that which shall prevent them from reaching the stage of irresponsibility.

While holding this opinion, however, we should be loth to endorse the rather startling statement which the Commissioners of Lunacy have made in their last Report with regard to the responsibility of the patient who made the fatal attack upon the late Mr. Lutwidge in Fisherton House Asylum. At any rate, before endorsing it, we should have wished to see how it bore the test of cross-examination in the witness box. This patient had been in confinement as a lunatic from the year 1846—for six years in the Bedford County Asylum, and afterwards at Fisherton House. When he was put on his trial for the wilful murder of Mr. Lutwidge, Dr. Finch deposed that he was of unsound mind, labouring under chronic mania with delusions, and that he was not responsible for his actions. Thereupon the Lord Chief Baron Kelly expressed a strong opinion that it was useless to go on with the case, and the jury immediately returned a verdict of not guilty on the ground of insanity. However, notwithstanding Dr. Finch's testimony, the opinion of the Chief Baron, and the verdict of the jury, the Commissioners express their opinion that the man "*was quite responsible for his actions.*"

They say of him—

He was well known to those members of our Board, who from time to time during this period (the period of his detention) had visited the asylum where he was confined. He was a working patient, employed usually in the garden, where, according to his own account, he had found the rail which he fashioned into a murderous weapon. The entries in the case book show that, although sometimes turbulent and threatening, he had never committed any serious assault, and was not considered actually dangerous. Those of our number who, as just mentioned, knew the man, described him as being a person of a weak, imperfectly developed intellect, but they agree in considering that he was quite responsible for his actions."

We must presume, then, that the Commissioners in Lunacy are of opinion that the man ought to have been hanged. We have no knowledge of his actual mental state, although Dr. Finch's testimony, taken in connection with the statement of the Commissioners as to his weak intellect, would appear to indicate that he was labouring under the chronic mania which has passed into dementia; but we cannot help

thinking that the treatment of a lunatic who had been nearly thirty years in confinement as a fully responsible agent would have been a startling exhibition, and would have initiated a new and revolutionary principle in the treatment of lunatics in asylums. For if we are to consider whether chronic lunatics are responsible for their actions when they do wrong, it is clear that when one of them wilfully offends or attacks an attendant, and the attendant punishes him for the offence, we should be bound to hold the attendant excused, or, indeed, justified. Or if such a patient, instead of committing homicide, were to commit suicide, being "quite responsible for his actions," would it not be illogical and unjust to censure those who had the care of him, in that they did not prevent him from acting as a quite responsible agent? Medical Superintendents of asylums will have an anxious difficulty imposed upon them if they are to treat the patients according to the degree of their responsibility, and to deal with those who may be thought to be quite responsible for their actions exactly as if they were so. They will do well not to attempt it, even though they should now believe that they may claim for the principle the sanction of the Commissioners in Lunacy, unless they can obtain from the Commissioners at their visits a positive opinion as to the degree of responsibility of each one of the 60,000 lunatics whom they visit in the year.

Dr. Orange's Report tells the story of the escape of Bisgrove. Looking to the manner of it, we cannot resist a suspicion that he was not quite so irresponsible for the murder which he committed as we supposed at one time. There is clearly much method in his madness, of whatever sort this may be, and if he comes again under Dr. Orange's care, we trust that he will consider him entitled by his exploits to rank in the second class of dangerous ruffians, and will treat him accordingly. His escape was in this wise:—

On July 12, a male patient, W. B., whilst taking exercise in the grounds, succeeded in throwing the attendant in charge of him off his guard by asking a question respecting some rabbit burrows which were near the path. The attendant was induced by the question to stoop down to examine one of the burrows, when the patient attacked him from behind, first inflicting a violent blow upon the back of the head, and afterwards making an attempt to strangle him. A struggle ensued, but the patient succeeded in making his escape into the neighbouring woods, and, although assistance was immediately ob-

tained, and a most persevering search was continued for many days, he was not recaptured. On examining the attendant he was found to have sustained a scalp wound about an inch in length, and also to be suffering from the effects of concussion of the brain, which rendered rest for several weeks necessary before he was sufficiently restored to be able to resume duty. The patient W. B., who thus escaped, had been tried with another man in the year 1868 for murder, and, in the first instance, both were convicted and sentenced to death, but W. B. having confessed that he alone was guilty, the other man was released, and the sentence of W. B. was commuted to penal servitude for life. He was afterwards certified to be insane, and was admitted into this asylum in January, 1869. During the early part of his detention he displayed a considerable amount of violence of conduct and language, but after a time a gradual improvement in this respect took place, and for eighteen months before his escape he had been permitted to go out for exercise from time to time in the grounds of the asylum outside the walls. On these occasions he had always previously conducted himself well. The attendant who had charge of him when he escaped had often accompanied him for exercise in the grounds in a similar manner; he also had the charge of the ward of which W. B. was an inmate, and he has been seven years in the service. But, notwithstanding his general experience, and his special knowledge of the patient, the latter behaved in so quiet and orderly a manner on the occasion in question, up to the moment of attack, as to entirely disarm the attendant of all suspicion. This occurrence has conveyed a warning to all more immediately concerned in the management of the asylum which will not soon be forgotten.

A Good Example.

It would hardly be possible to use higher terms of commendation than those in which Sir James Coxe and Dr. Mitchell, the Scotch Lunacy Commissioners, describe the condition and management of the Argyll District Asylum. This satisfactory result they attribute mainly to the beneficial employment of the patients. "Industrial occupation here," says Sir James Coxe, "means really active employment, and is very far from being a mere matter of pretence." On the day of his visit, though the weather was wet and boisterous, there were out 129 male patients, 86 at work in the grounds, garden and farm, seven with the artisans, and ten in house-cleaning; so that only 26 remained unemployed by means of idleness or sickness. "One of the most marked results of the system of sending all the patients in small parties to various occupations," Dr. Rutherford says, in his Report of 1874, "is

that airing courts are unnecessary: no patient has been confined in an airing court for about five years." As Dr. Mitchell puts it, "there are no walled airing courts, and the *formal walk* is practically unknown." Another result has been that seclusion is rendered unnecessary. Patients who might have required seclusion in close asylums are sent out into the open fields under the care of one, or, if necessary, of two attendants. And a third result has been that narcotic drugs have not been found necessary to subdue excitement. On this subject Dr. Rutherford makes the following remarks:—

Again, narcotic drugs have not been resorted to during the past year to subdue excitement, and the amount of alcoholic stimulants employed has been very small indeed. Comfortable apartments, an abundant dietary, with medicinal treatment, chiefly of a tonic character, have been mainly relied on. In every case where a specific bodily disease was discovered, the patient received the recognised medical treatment for such disease; but where no such disease or disorder was discovered, the experimental administration of drugs was avoided. In other words, soothing and nourishing influences, and not narcotic and sedative drugs, were relied upon to subdue mental excitement. Alcoholic or other stimulants were not given to overcome mental depression.

It would appear then that, with suitable means of active out-door employment for the patient, it is possible to treat insanity successfully without seclusion, without airing courts, without narcotic drugs, and without alcoholic or other stimulants.

PART II.—REVIEWS.

The Lunacy Blue Books.

1. Twenty-Eighth Report of the Commissioners in Lunacy. 1874.
2. Sixteenth Annual Report of the General Board of Commissioners in Lunacy for Scotland. 1874.

The English Report begins with an account of the death of Mr. Lutwidge from the effects of a blow on the head with a nail which he received from a criminal lunatic at Fisherton House. Every asylum officer who knew him will most cordially join in the following resolution. We once heard a patient in the asylum, who was not ordinarily given to paying

compliments, say after an interview with Mr. Lutwidge, in which the latter had told him he could not interfere to liberate him, "He wouldn't order my discharge, but he's the finest specimen of an English gentleman I ever met."

The members of the Lunacy Board, deeply grieved at the lamentable occurrence by which the life of a valuable public servant and an esteemed private friend has been sacrificed, beg to convey to Mr. Lutwidge's family an expression of their unfeigned sympathy and sorrow, and desire to place on record their sense of the loss which they have themselves sustained by the death of an unwearied fellow-labourer, who had served on the Commission since it was constituted by the Statute of 1845, who brought great ability and the most varied experience to the duties he took so much pleasure in discharging, and whose kindly and generous disposition had endeared him to all his colleagues.

The number of the insane in England had increased by 1,731 during the year, being 62,027 on the 1st January, 1874. Of these 54,735 were paupers, 30,956 of whom were in county and borough asylums, 15,018 in workhouses, and 6,839 "out-door paupers."

The average annual increase of the registered insane has been 1,723 for the last ten years. During the year 1873 the increase of patients was 269, or at the rate of 3·7 per cent. of the total number now existing, and that of the paupers 1,452, or only at the rate of 2·7 per cent. Taking the last ten years the increase has been 23·7 per cent. of the present numbers in the case of the private patients, and 26·8 in the case of the paupers. It is commonly supposed that the enormous increase in the registered insane of late years has been chiefly confined to those who are paid for out of public funds, but this is by no means the case.

The ratio of the insane to the population has now reached 2·62 per 1000, or one to every 382.

In the 182 asylums, hospitals, and licensed houses now existing in England and Wales, there were, on the 1st of January last, altogether 39,734 patients; namely, 3,855 males and 3001 females of the private class, and 15,017 males, and 17,861 females who are paupers.

The total admissions into these establishments in 1873 were 12,611; of these, however, 1,332 were transfers from certain institutions to others, and 1,499 were re-admissions.

The proportion of the re-admissions to the total admissions was, in county and borough asylums, 13·13 per cent.; in registered hospitals, 10·13 per cent.; in metropolitan licensed houses, 6·53 per cent.; in provincial licensed houses, 10·22 per cent.; and in the four state asylums, 1·61 per cent.

On the 1st of January, 1873, the patients in county and borough asylums were 30,473 (13,982 males, and 16,491 females). During the past year the admissions have been 9,426, so that the total number of both sexes under treatment during 1873 amounted to 39,899.

The total discharges, including the transfers, were 5,211; of these 3,201 are reported as recoveries. The deaths of the year were 3,317. These changes left 31,371 patients in these asylums on the 1st of January last (14,432 males and 16,939 females), being an increase in the year of 898; namely, of 450 men and 448 women. The daily average number throughout the year was 30,991.

The recoveries as compared with the total admissions of the year were in the proportion of 33·95 per cent. The deaths upon the average daily number resident were in the ratio of 10·70 per cent., and calculated on the total number under treatment, the proportion would be 8·31 per cent.

The per centage of recoveries is 2 per cent. below the average of the last 15 years. The rate of mortality, though higher than in 1872 is, it will be seen on reference to Tables V. and VI., somewhat lower than the average of the 15 years.

There has resulted a further accumulation during the year, in county and borough asylums, of patients whose insanity is of a chronic form, offering but small chance of recovery.

Of the 31,371 patients resident on the 1st of January, 1874, the number deemed by the various medical superintendents to be curable was only 2,293, or a proportion of 7·39 per cent. The patients deemed curable in these asylums on the 1st January, 1873, were in the proportion of 8·12 per cent.

We have thought it desirable to give at the end of this report, Appendix C, plans of three small asylums of approved and modern construction, namely, of the asylum at Beverley, for the East Riding of Yorkshire, and of the borough asylums of Ipswich and Newcastle.

In several asylums special arrangements have been made with the best result for the constant supervision of epileptic and suicidal patients during the night, and we hope that provision for these classes will ultimately be made in all. There has, no doubt, been a diminution during the past year in the number of epileptic patients reported to this office as having been found dead in bed, but whenever such casualties arise, we continue to press upon the visitors and superintendents of asylums the great importance of appointing special night attendants, and making such additions to, or structural alterations in, the building, as will ensure the patients being kept under continuous observation during the night.

Mr. C. H. Howell, architect, of Lancaster-place, has, at our request, furnished us with a plan which he has prepared of a simple and economical form of ward for epileptic or suicidal patients, and which will be found appended to this report, Appendix C.

"The drawing," he states, "shews the general arrangement and

construction of the building, which is designed to provide accommodation for 48 patients on each floor, six in single rooms, and 42 in a large dormitory, planned so that all the beds may be seen from any point, in order that one attendant may during the night take charge of all the patients in the large room and the single rooms attached to it. Beside the precaution of having the upper panels of the doors in the single rooms open, the wall separating the single rooms from the dormitory is only 10 feet high, leaving a clear space of three feet between the top of the wall and the underside of the ceiling, to enable the attendant to hear at once any patient who may during the night require attention.

"It is proposed to light the dormitory by pendants, with gratings in the ceiling leading to the ventilating shafts, and the single rooms by lights over the doors, protected on the inside by strong glass, and on the outside by doors filled in with wire lattice. By means of an ordinary tap on the outside, the attendant will be enabled to turn on the gas at any moment; and the products of combustion are to be carried off through a tube into a small flue on the top of the wall leading into a ventilating shaft.

"The dormitory and day-room are intended to be ventilated by gratings in the floors and ceilings, by flues attached to the chimney breasts and by *louvre*s in the gables.

The estimated cost of a building for 48 patients on the ground floor is, £2,935, or £61 per patient, and of a building two storeys high, for the accommodation of 96 patients, £5,376, or £56 per patient."

Mr. Howell's plans seem very simple and suitable for the purpose for which they are intended, but one cannot help having considerable misgivings as to the effect of putting 48 or 96 epileptics together both by night and day. If epileptics really require constant watching by night, do they require to be segregated and kept all together all day as well? The mental state, the capacity for work and enjoyment, the habits as to cleanliness and companionability of epileptics, differ enormously in different cases. It would seem rather hard to make an intelligent, active, cleanly man consort by day and night with permanently violent, dangerous, and dirty men, because he was liable to take a fit by months. In such a case we can well imagine the sentiments of such a man to be those we once heard an epileptic gentleman express, who, on being remonstrated with for going too near a waterfall to look over in case he should have taken a fit, replied, "Life would not be worth having if I never could enjoy anything without thinking I was to have a fit every minute, or being watched as if I were to have one." It is unquestionably one of the objects of asylums to prevent the

risk of patients dying in fits or committing suicide, but it comes to be a question in many cases whether resorting to all the means and precautions by which such accidents can be absolutely prevented in every case would not necessarily lead to all the now discarded barred windows, safe furniture, strait jackets, and general want of freedom that characterised the old asylums; for the risks of deaths and accidents are by no means confined to the epileptic and suicidal patients. Must not great risks be run in order to secure the happiness that can only accompany some amount of freedom? It is the old question that has to be solved in lunatics, as in society, how liberty and order can exist together. No hard and fast lines can be drawn applicable to every case. The physician's view of treating every case according to its individual requirements is the only solution of the difficulty.

The Scotch report shows an increase of 139 patients during the year, the number at the end of the year being 7,851, of whom 6,505 were paupers. The pauper patients were chiefly distributed thus:—In public asylums, 4,346; in workhouses, 556; and in private dwellings, 1,488. The registered insane have increased from 6,391 in 10 years, or at the rate of 18·6 per cent. of the present numbers.

The proportion of the insane to the population in Scotland was 2·32 per 1,000, or one per 431 of population.

The Scotch Commissioners say:—

During the period in which we have been exercising our functions, a very great improvement has been effected in the aspect of the patients in all our asylums. Whether this change is to be ascribed to the prevalence of milder forms of lunacy, or to improved management, is a question of great practical importance. For ourselves we are satisfied that it must be ascribed in a very great measure to the latter cause. We see no evidence of any change in the forms of lunacy admitted into our asylums, but we have no difficulty in tracing the effects of more enlightened and humane treatment in modifying the condition of the patients after admission.

It has frequently been asked whether it is better that the house of a medical superintendent of an asylum should be in juxtaposition to the buildings accommodating the patients, or at some little distance from them. For the one side, it has been argued that the nearer the superintendent is to his patients the better they will be looked after; and for the other, that, to enable him properly to discharge his functions, he should be secured from constant and unnecessary interruptions. We believe that, with a superintendent whose soul is in his work, it will signify little which arrangement has been adopted, but when he is indifferent, or allows himself to be taken

up with other pursuits, we fear there is considerable risk of the supervision being less constant and efficient when his house is at some distance from the asylum than when it is in close proximity to it. When visits come to be made at stated hours, and especially when the superintendent announces his arrival by ringing for admission, it is clear that the term of resident physician becomes a misnomer, and that the guarantee against neglect or maltreatment by attendants, which such an appointment is intended to afford, becomes feeble, and altogether delusive.

The following observations of general medical interest occur in regard to the mortality among the insane :—

In our Fourteenth Report (p. xxviii. xxx.) we pointed out that comparisons instituted between the mortality of asylum patients, and of the general community, have occasionally led to erroneous conclusions. We drew attention to the difficulties which surround such comparisons, and in a particular manner to those arising out of the facts that the inmates of asylums are adults; that they die at a rate many times higher than the ordinary population; and that they all labour under some diseased or abnormal condition of the nervous system. These facts should be duly considered even when our comparisons relate to deaths from all causes, but if we lose sight of them when comparing the mortality of asylum inmates from a particular disease, with that of the general population from the same disease, we are certain to arrive at conclusions which are inaccurate.

That a great difference exists between asylum patients and the general community when classified according to age is shown by the following table :—

TABLE LII.

AGES.	Proportion per cent. of the whole population of Asylums of patients at different ages.	Proportion per cent. of the whole population of Scotland of persons at different ages.
	From returns at 1st January, 1870.	From returns for the ten years 1855-1864.
0-20	2·1	46·1
20-30	13·7	16·7
30-40	24·3	12·3
40-50	23·9	9·7
50-60	18·4	7·1
60-70	11·2	5·0
70-80	4·4	2·3
80-90	0·8	0·7
90-100	0·1	0·1
Unknown	1·1	...

It appears from this table that only 2·1 per cent. of the inmates of asylums are under 20 years of age, while the corresponding proportion of the general population is 46·1 per cent. On the other hand 38·0 per cent. of asylum patients are between the ages of 20 and 40, and 35·5 per cent. between the ages of 40 and 70, as against 29·0 and 21·8 per cent. of the ordinary population for the same ages.

It follows from this, not only that persons of all ages below 20 must be excluded from such comparisons, but also that those above the age of 20 cannot properly be dealt with in mass. Particular diseases affect particular ages, and may therefore be expected to prevail in communities which are largely composed of persons at those ages. Phthisis, for instance, is fatal in a special manner to men and women whose age is between 20 and 35, and would certainly produce a larger number of deaths in a population consisting entirely of persons between those ages, than it would do, *ceteris paribus*, in a population made up of persons between the ages of 40 and 60. It is not sufficient, therefore, that we omit all below the age of 20; we must also divide those above the age of 20 into groups embracing periods of not more than 5 or 10 years.

But it is necessary that the bearing of other things as well as that of age be fully considered in making the comparisons to which reference is here made. If, for example, we estimate the comparative fatality of phthisis in asylums and in the general population, simply by calculating the per-centage of deaths from phthisis to deaths from all causes in the two communities, we shall certainly arrive at erroneous conclusions, even though the influence of age may have been duly considered. Such an estimate is attempted in the following table:—

TABLE LIII.

AGES.	Percentage of Deaths from Phthisis to Deaths from all causes in the general community—Scotland—according to age and sex.				Percentage of Deaths from Phthisis to Deaths from all causes in the population of Scotch Asylums, according to age and sex.			
	From Returns for the years 1855-1864.				From Returns for the years 1872 and 1873.			
	M.	F.	Both Sexes.	Both Sexes for decennial periods.	M.	F.	Both Sexes.	Both Sexes for decennial periods.
20-25	44·51	45·56	45·01		50·00	54·54	52·38	
25-30	40·89	42·19	41·12	43·06	30·30	47·82	37·50	44·93
30-35	34·08	37·59	35·95		33·94	43·48	38·23	
35-40	27·49	32·04	29·43	32·69	11·43	27·45	18·18	28·21
40-45	22·89	27·22	25·15		11·29	20·00	15·38	
45-50	18·02	21·93	19·42	22·28	13·72	23·57	18·28	16·83
50-55	14·71	15·56	15·13		10·90	15·90	13·13	
55-60	11·28	11·35	11·31	13·22	7·14	15·00	10·97	12·05

This table shows that every 100 deaths of asylum inmates between the ages of 20 and 25 includes 52·38 from phthisis, while every 100 deaths of persons in the general population between the same ages include only 45·01. The next quinquennial period shows 37·50 per cent. for patients in asylums, and 41·12 per cent. for the ordinary population, and so on for the other periods. For the ages between 20 and 25, and between 30 and 35, the proportion of deaths from phthisis to deaths from all causes is higher among the insane in asylums than among the general population. For all other ages, however, it is lower; but if we deal with the first three periods of the table as one, it then appears that of all who die between the ages of 20 and 35, the per-centage of those who die from phthisis is the same, whether the deaths occur in asylums or out of them, being 41·0 per cent. in the case of asylum deaths, and 41·15 per cent. in the case of deaths among the general population. We might, therefore, say that there is little or no difference between the rate of dying from phthisis among the sane and insane.

It would be a great error, however, if we regarded this table as in any sense revealing the comparative value of phthisis as a cause of death in the two communities which are under consideration. It merely shows the relation which the mortality from consumption bears to the total mortality in the two cases, but it leaves out of view the amount of the total mortality, by which it is clear the relation must be influenced. The death rate from phthisis, for instance, may remain stationary, while its relation to the death rate from all causes may vary considerably. A severe epidemic, causing a great increase of the total mortality, would affect the per-centage of deaths from phthisis, and might, in this way, be said to diminish the ravages of pulmonary consumption, though the number of those who died of it, so far from being lessened, was increased.

Now it happens that the death rate in asylums from all causes is no less than 4 to 5 times higher than that of the general community, at nearly all ages; and it follows from this that no exact conclusions can be drawn as to the comparative fatality of phthisis in asylums and in the general community, from the proportions which the mortality from phthisis bears to the whole mortality. The mere fact, however, that in spite of the higher asylum death rate, the per-centage of deaths from phthisis to deaths from all causes for the ages between 20 and 35 is as great in asylums as out of them, constitutes a conclusive proof that tubercular diseases are more frequent in them than in the general community. More than this is not needed to prove that phthisis is more frequent among the insane, but it affords no measure of the comparative frequency, and in order to arrive at a knowledge of this, we have constructed the table which follows.

TABLE LIV.

AGES.	Yearly Deaths per 1000 of the general population of Scotland at different ages.		Yearly Deaths per 1000 of the population of asylums in Scotland at different ages.	
	Calculated from Returns for the ten years 1855-1864.		Calculated from Returns for the years 1872 and 1873.	
	Both Sexes.		Both Sexes.	
	Deaths from all causes.	Deaths from Phthisis.	Deaths from all causes.	Deaths from Phthisis.
20-30	9·76	4·23	57·42	25·15
30-40	10·67	3·52	74·12	19·19
40-50	13·17	2·97	70·57	11·75
50-60	19·67	2·80	78·56	9·55
60-70	36·66	2·08	145·88	6·39
70-80	88·85	1·21	204·30	1·79
80-90	192·70	0·57	340·90	0·00

This Table is read thus: Of 1000 persons living in Scotland between the ages of 20 and 30, there are 9·76 who die annually, and in 4·23 of these the cause of death is phthisis; again, of 1000 people in Scotch Asylums between the ages of 20 and 30, there are 57·42 who die annually, and in 25·15 of these the cause of death is phthisis; and so on for the other ages. In other words, while 1000 people in the general community, between the ages of 20 and 30, furnish 4·23 deaths annually from consumption, 1000 asylum patients, of the same age, furnish 25·15, or 6 times as many. During the next decennial period, phthisis is again nearly 6 times as fatal to the inmates of asylums as to the general population; during the next, 4 times, during the next, three times, and so on—being more fatal at all ages except between 80 and 90.

It appears, therefore, beyond question that the inmates of asylums suffer in a much higher degree from pulmonary consumption than the population generally.

This conclusion requires no further proof, but it is supported by the following calculations which we have made in examining the question.

The proportion of persons in asylums at those ages which yield a high mortality from phthisis—say from 20 to 30—is lower and not higher than in the general population, being 13·7 per cent. among the insane, and 16·7 per cent. among all classes. Table LI., from which these figures are taken, shows not only the complete absence of young persons from asylum populations, and a lower proportion of persons in early manhood and womanhood, as compared with the general population, but it shows also an excessive proportion of persons between 40 and 60. The following Table illustrates the same point, and shows that, in proportion to their number, the population between the ages of 10 and 30 furnish fewer asylum patients than the

population between 30 and 80, and still fewer than the population between 40 and 70.

TABLE LV.

AGE.	Proportion of Patients in Asylums per 100,000 of general population, according to age.
10-20	19
20-30	156
30-40	375
40-50	466
50-60	492
60-70	434
70-80	377
80-90	203

The figures in the foregoing Table, and in Table LII., thus show that the inmates of asylums consist largely of persons at those ages which are known to exhibit a special liability to disorders of the nervous centres. This, of course, is only what we might expect, and what is perhaps sufficiently revealed, though in a less exact manner, by such a fact as that the average age of residents in asylums is 44·5 years.

The inmates of asylums die of some diseases at a higher and of others at a lower rate than the general population, but the total mortality is always much higher. It scarcely needs figures to prove that a considerable proportion of this excessive mortality is due to cerebral and spinal disorders. We might safely assume this to be true from the fact that all the inmates labour under some form of nervous disorder which is certain to be fatal to many, though in others it is not of such a nature as to lead directly to death. Such an assumption, however, is borne out by figures, for it appears that cerebral and spinal diseases produce 39·7 per cent. of the deaths in asylums, and only 10·5 per cent. of the deaths in the general community above the age of 20. It will more correctly exhibit the comparative value of these diseases as a cause of death in asylums and out of them, if we calculate the proportion of every 1000 persons above the age of 20 who die of them annually. This gives for those in asylums 34·6, and for those in the ordinary population 2·1.

We have referred to the influence of cerebral and spinal disorders on the death rate in asylums in order that we may look at the deaths from consumption which occur in them from yet another point of view. If this special and prominent cause of the high death rate in asylums, namely disease of the nervous centres, ceased to operate in

asylums more strongly than it does in the general population, what proportion would deaths from phthisis then bear to deaths from all causes among the insane and sane? We shall probably obtain the best available answer to this question if we deduct deaths from cerebral and spinal diseases from the total number of deaths of persons above the age of 20, both in the population of asylums and in the general population, and then calculate the proportion of deaths from phthisis to deaths from all causes except cerebral and spinal diseases. When this is done we find that phthisis constitutes 27·74 per cent. of deaths in asylums, and 23·23 per cent. of deaths in the general population.

Responsibility in Mental Disease. By HENRY MAUDSLEY, M.D. King and Co., 1874.

(Reviewed by J. BURCHELL SPRING, B.A., T.C.D., Chaplain, Bristol Lunatic Asylum.)

Daniel O'Connell, the "Liberator," as he was called, is reported to have expressed upon more than one occasion a thorough contempt for English Statute Law. "I could drive a coach and six through any Act of Parliament," was not an unusual saying of his; and though no doubt there was naturally exaggeration in the statement, as there naturally would be energy in its expression, it was still not without a measure of truth. The "law's delay" in the mouth of "Hamlet" is, indeed, applicable to a foreign land; but "Hamlet" is the creation of genius, and the great magician who conjured him into existence is probably narrating in some shape his own experience, and referring not to the customs of a foreign land but to those of our own. It was not, however, simply the "law's delay" that O'Connell, in his moments of passion, had in his "mind's eye;" it was the uncertainty which is involved in the law's delay, and which yet may be independent of it. We are everywhere beset with this uncertainty. A man's will can be interpreted in various ways; a person rejoicing in possession to-day may be mourning ejected to-morrow; a mere technical phrase will often upset an elaborate judgment, and this judgment, which reverses, will itself be revised and reversed.

If, however, anyone should desire to see this uncertainty carried out, as it were, to its farthest limits; to behold bewildered and bewildering judges and floundering lawyers, he cannot do better than consult "*Responsibility in Mental*

Disease," and study carefully the chapter entitled "Law and Insanity."

In small compass, but in lucid language, and with valuable comments, Dr. Maudsley has given us the history and nature of the different theories, which, in civil and criminal cases, have been propounded concerning the responsibility of those unhappy people on whose behalf the plea of insanity is raised.

We have first of all what has been appropriately termed the "wild beast theory," which is founded upon the doctrine of the good Lord Hale, and which Judge Tracey enunciated in memorable words:—

It is not every kind of frantic humour, or something unaccountable in a man's action, that points him out to be such a mad man as is exempted from punishment; it must be a man that is totally deprived of his understanding and memory, and doth not know what he is doing, no more than an infant, than a brute or a *wild beast*; such a one is never the object of punishment.

Then, after some further attempts at decisions, came a "knowledge of right and wrong in *general*," which knowledge was all that was required for hanging purposes; and, finally, a knowledge of right and wrong in reference to the particular act, and in reference to that act at the time it was committed, was laid down as the rule to be observed, and the test to be applied.

Concerning this rule and test, Dr. Maudsley writes—"If strictly applied it will cover and excuse many acts of insane violence;" but he adds, "it is limited in its application by a formidable exception," by which "exception"—having clearly explained and illustrated its nature—he tells us, "The judges actually bar the application of the right and wrong criterion of responsibility to a particular case by authoritatively pre-judging it; instead of leaving the question to the jury they determine it beforehand by assuming the possession of the requisite knowledge by the accused person." With a glance at some additional uncertainty arising from a confusion of terms in the answers upon which the rule is framed, he sums up, in reference to the application of the rule, and the present condition of things which proceeds from it, so far as the insane in criminal cases in this country are concerned—

It is notorious that the acquittal or conviction of a prisoner, when insanity is alleged, is a matter of chance. Were the issue to be decided by tossing up a shilling, instead of the grave procedure of a

trial in court, it could hardly be more uncertain. The less insane person sometimes escapes, while the more insane person is sometimes hanged; one man labouring under a particular form of derangement is acquitted at one trial, while another having an exactly similar form of derangement is convicted at another trial.

We cannot follow Dr. Maudsley to the civil tribunals; those who feel an interest in the matter, may speedily discover that here, too, "uncertainty" meets them. One quotation will suffice; it will be a lamp in our hands to show us the darkness of the way, and to assure us that we are yet in the regions of clouds. "When the question has been one of testamentary capacity the view taken of the effect of mental derangement has been different from that which has found favour when the question was one of criminal responsibility. Uncertainty and confusion have, however, long prevailed, and it is only quite recently that definite principles have been authoritatively laid down."

Thus, then, we have seen the connection of law and insanity during that period of time which—from Dr. Maudsley's book, and in reference to "Law and Insanity"—we may call the "Historic period."

But whilst our author was bringing this portion of his subject to a conclusion, the question must have been raised in the minds of his readers, "How came the law to bear thus hardly upon the insane?" Or, rather, "How came that infamous treatment of the insane which the 'wild beast' theory points to?" How came it to pass that "sightseers went to see the mad man as they went to see the wild beasts for amusement?" that "he was cowed by the whip or other instrument of torture, and was more neglected and worse treated than if he had been a wild beast?"

Dr. Maudsley is ready with the answer. It is clear and precise. There is no difficulty in his mind, nor doubt in his heart. "It had its origin in the dark ages of Christian superstition," and "its cause is to be discovered in the detestable spirit of religious asceticism."

Now in order to demonstrate the religious asceticism of the dark ages of Christianity, as the cause of the evil treatment of the insane in those ages, Dr. Maudsley introduces to our notice, with an epitome of their actions, three wretched ascetics, Antony, Stylites, and Macarius, who happened none of them to live in the dark ages of Christianity, but who had all of them their existence in the earlier ages of Christianity. If it be said that men of similar deeds, and therefore of

similar spirit existed, and that consequently, though the naming be wrong, the reasoning is right; we answer, where are the proofs of their existence? Mr. Lecky informs us that in those ages "the very sense of truth, and the very love of truth seemed blotted out from the minds of men." Hallam declares that sensuality was the besetting sin of the age; that licentiousness everywhere abounded. Dante, too, the precursor of light, echoing the opinions of the darkness that was passing away, declares concerning the besetting sin of that darkness—

"How incontinence the least offends
God, and least guilt incurs."

But where is the historian who can show us that religious asceticism prevailed, and that spirits akin to Antony, Stylites, and Macarius were other than myths? And here it may well be asked what had "religious asceticism" to do with Christian superstition in the dark ages, or with Christian purity in the first ages? What, in fact, had it to do with Christianity at all? Whether its spirit be "detestable" or not, it is not to Christianity in any shape or form that it owes its birth. It is common to every sect, and is to be found in every age. We behold its face in the Holy books, the Vedas and the Gita of the Hindoo; we hear its voice in the teachings of the philosophers of Greece and Rome; it meets us in the lonely desert of Asia, and in words identical with those which are objected to as evidence of its "detestable" spirit when allied to Christianity, it disdains and defies the Conqueror of Nations. "Go, tell Alexander," it exclaims "the vegetables of earth suffice us while living, and if we must die, death will but free our souls from the encumbrance of the body, which is at best but a troublesome companion." And as it was in the Old world so in the New; as in the cultivated East, so in the untutored West. "The Indian," says Bancroft, "detesting restraint was perpetually imposing upon himself extreme hardships, that by penance and suffering he might atone for his offences, and by acts of self denial might win for himself the powerful favour of the invisible world."

Thus we have seen that religious asceticism was known before Christianity was heard of, and practised in regions where Christianity never reached; and we are also assured that though other spirits more "detestable" it may be than itself were abroad in the dark ages of "Christian supersti-

tion," this "detestable spirit" never walked the land when the darkness of those ages sat brooding upon the people of the land.

It is now to be inquired for a moment whether the evil treatment of the insane which was *not* caused by the religious asceticism of the dark ages, had, as is asserted, its origin in those ages?

To demonstrate the truth of this assertion it would be necessary to make clear and plain the practice of a contrary and rational mode of treatment in the ages preceding; but where is this made plain and clear? Dr. Maudsley, indeed, favours us with a quotation from Hippocrates which is worthy of credit; but between the age of Hippocrates, that superb and unequalled age, and the beginning of the dark ages, there intervened a space of time equal in duration to the entire extent of the dark ages, and during the whole of that period what evidence is there that the advice of Hippocrates was acted upon, and his example imitated? During the greater portion of that period—with the exception of Antonius Musa, who failed in his hydropathic treatment of the nephew of Augustus, and prematurely sent the young man to Hades, thereby enabling Virgil to commemorate him in verses that will never die, and Celsus ("Vir medioeri ingenio")—almost every physician of note in Rome was a Greek or a native of a Greek colony, but what evidence is there that any of them followed in the footsteps of their great countryman Hippocrates?

Asclepiades, whom Dr. Maudsley refers to, was originally a rhetorician at Rome, but took to physic because it was a more lucrative business. Soon, however, in his practice he threw physic to the dogs; he recommended not merely in madness, but in almost every disease, "Music, love, and wine," not for philosophical reasons, but because he liked them himself, and found them not displeasing to his patients. He appears to have been a beautiful talker, a sociable friend, full of health and spirits, condescending to trivial affairs, and naturally delightful in ladies' society.

"Have I not been
Thy pupil long? Hast thou not learned me how
To make perfumes? distil? preserve? yea, so
That our great King himself doth woo me oft
For my confections?"

But surely it is conferring too much honour to call this man who lived 400 years later than Hippocrates, and who utterly eschewed the precepts of his great countryman, "The

real founder of a psychical mode of cure." And yet this man had many disciples, though many opponents, and was actually a superior spirit till poor Celsus exposed him. Galen, we suppose, was the only real imitator of Hippocrates, and the only one who could have lifted his profession from the mire; but his ideas of madness were entirely erroneous, and his own mean and narrow spirit hindered his brethren from adopting his counsels in those cases where such counsels might possibly have proved beneficial. Galen, too, lived when the Roman Empire was tottering to its fall; and though more than two centuries elapsed before it crumbled in ruins, the times were unfavourable, and no physician arose who could compete in knowledge or in skill with some of those who pursued their calling amid the darkness of the middle ages. There is evidence to show that during the whole period of the Roman power, though doctors were sometimes honoured and esteemed, they were, as a rule, despised and rejected; medical science was little understood, and on the whole was in the same contemptible condition as when Le Sage and Molière ridiculed and denounced it, and Lineacre complained that the most worthless characters, "labourers, smiths, and women," were permitted to practise it.

No wonder, then, that in Rome those who devoted themselves to the healing art should be despised and rejected; censured by Cato, scorned by Pliny, and by special edict expelled from the city. It is plain, therefore, that as no rational mode of treating any disease was acknowledged, no rational treatment of madness could possibly be adopted. But now we pass from the regions of conjecture and doubt, and are met with a positive statement, which fortunately is within the reach of proof or of disproof: "Many insane persons," says Dr. Maudsley, "were without doubt executed as witches, or as persons who had, through witchcraft, entered into compact with Satan." This is a positive declaration without authority, and nothing but a positive declaration with authority can refute it.

Sir Walter Scott and Mr. Lecky, no mean authorities, both declare that, except for political purposes, no person was put to death for witchcraft in the "dark ages;" it may be surprising, but it is true, that it was not until the dark ages had passed away, it was not until the 15th and 16th centuries, the boasted age of Reformation in Religion, in Medicine, and in Philosophy, that witches, or "persons who had entered into compact with Satan," were put to death, and had tor-

tures worse than death inflicted upon them; "the bones of the legs were broken into small pieces in the boots, the nails upon all the fingers riven and picked off, and under every nail two needles thrust in even up to the heads."

"Madness," says Mr. Leckey, from whom the above extract is taken, "is always peculiarly frequent during great religious or *political revolutions*,* and in the sixteenth century all its forms were absorbed in the system of witchcraft, and caught the colour of the prevailing predisposition."

We should gladly discuss this question, and endeavour, even at the risk of failure, to point out how the evil treatment of madmen originated, and when it began; but with the very limited space at present at our disposal, it would be impossible to do so.

We proceed now to consider another portion of the fascinating subject before us.

The alliance between insanity and the "prophetic inspiration" is not, we imagine, so close as Dr. Maudsley would have us believe; indeed, the attempt to assimilate them appears to proceed from a mistaken assumption. It is assumed that our own manners and customs are the same as the manners and customs of ages that are gone, and of a people that is remote; if we were invited to dine with a West End aristocrat, and if, accepting the invitation, we were to recline on a sofa with our head on the bosom of our neighbour; if we were to put our hand in the dish and smear our face with juicy bits, we should be mad.

If, however, we were to receive and accept a similar invitation from an Arab Sheik, we should probably for similar conduct be highly complimented and gratefully remembered. If instead of ascending a pulpit in orthodox costume, and preaching in orthodox fashion, we were, like Jeremiah and Ezekiel, to bury a girdle in the earth, or bake a cake with dung, or carry a tile from one place to another, delivering our discourse as we proceeded, we should probably have our discourse shortened; and, to account for the eccentricities of our movements, our "motor centres" might be blamed. But if

* It is only fair to say that Dr. Legrand du Saulle, in his luminous work, "*Le Delire des Persecutions*," combats the idea of the frequent occurrence of madness through political revolutions. His words are: "On croit généralement et l'on répète sans cesse que les événements politiques exercent une influence très-marquée sur le développement de la folie; entraînent une élévation considérable du chiffre des aliénés et conduisent aux catastrophes cérébrales les plus inattendues. C'est là une erreur." It is plain, however, that these words do not touch the point at issue.

we lived in the times of the Prophets, and in the land of their fathers, though our language might be displeasing our actions would not be uncommon, and our minds would consequently be considered as unimpaired. It was by signs, and by symbols, by meanings hidden in deeds, that knowledge was then conveyed and warning received.

This, then, is the general answer to the statement of similarity which meets, we think, the cases of Jeremiah and Ezekiel, but which does not meet those of Isaiah and Hosea which Mr. Clissold has adduced, and which are to be dealt with in a different way. It is not necessary to believe that Isaiah went naked through the streets of Jerusalem for three years or for three hours. Before the command came to him, there is no reason to suppose that he had been without his ordinary dress, but in addition to that dress he had as an emblem of mourning, and also, perhaps, in connection with his prophetic character as a denouncer of woe, assumed a garb of sackcloth. Now, the command was, "Go and loose the sackcloth from off thy loins, and," it is said, "he did so, walking naked"—that is as to the sackcloth, but not as to his ordinary dress, which he would still retain, and which would now be the sign of rejoicing at the overthrow of his enemies, as the sackcloth was the sign of sorrow at the woes of his country.

But upon this point the Rev. David Nelson, M.D., in his work on Infidelity, thus remarks, "The man without arms was and is called 'naked' in a military sense; armed troops and naked troops are terms in common use. Those who are not only despoiled of arms, but destitute of robes and upper garments, as slaves commonly are, were called 'naked.' No one means by this stark nakedness."*

In reference to Hosea, all that need be said is that the word which is translated "whoredom" means also idolatry, or communion with foreign nations, and then the sense will be "Take a wife from a nation that is foreign or Gentile." Now to follow such advice would surely not be a mark of insanity; even Dr. Maudsley himself, with his detestation of the patriotism of Hippocrates and Galen, and with his ardent aspirations for cosmopolitanism, might *well and consistently recommend it*.

* We could get no corroboration of Nelson's views in our Hebrew Lexicon; we, therefore, consulted the "Septuagint." The word "naked" is there γυμνός, which, of course, means often, lightly clad; and upon turning to the reference in "Macabees," we find it translated "abjectis armis," which would seem to settle the question.

On the subject of epilepsy, which is in its nature akin to insanity, Dr. Maudsley propounds views somewhat similar to those which he has advanced when treating of the "prophetic inspiration." "A feature which is often very notable in epileptics is an exaggerated development of the religious sentiment, whereby it comes to pass that they see visions, and perhaps announce themselves as the organs of special revelations from on high."

Now the most limited experience in asylums is sufficient to assure us of the accuracy of this statement; but at the same time our limited experience tends to convince us that it is only under certain conditions that the "religious sentiment"—to quote the words of Dr. Howden, to whose admirable article reference is made—in an "exaggerated," or even in an ordinary "development," is discernible. In June last there were 23 female and 40 male epileptics in the Bristol Asylum. Accompanied by the Medical Superintendent, Mr. Thompson, we carefully questioned each patient. We found that in 60 cases the religious sentiment was somewhat more than ordinarily developed—that is, there was a constant wish to attend chapel and to read the Bible. In one case there was the exaggerated development to which Dr. Maudsley alludes, the seeing of sights and the dreaming of dreams; in two instances there was no religious sentiment at all. Now, in the two instances in which there was no religious sentiment there had been no religious education. In the 60 cases in which the sentiment was ordinarily, or somewhat more than ordinarily developed, there had been a previous religious education, some patients having been Sunday school teachers, and almost all Sunday school scholars; in the one case of exaggerated development there had been an exaggerated religious education, the patient, who was a boy, having been brought up amongst a sect of Revivalists. With all this, we think that Dr. Howden, in a measure at least, would agree. He says, "In congenital cases, or those arising from diseases of childhood, education, no doubt, exercises a powerful influence. The epileptic child is necessarily less able to join in the amusements and occupations of healthy children, and a large share of his time and attention may be devoted at home to religious instruction." If, then, it be substantiated—we do not say that it is—that the religiously educated epileptic it is, who, as a rule, exhibits the religious sentiment exaggerated, or otherwise, according to the nature of his previous training—does it not follow, clear as the sun at

noon-day, that epilepsy and an exaggerated development of the religious sentiment have no more real connection than insanity and the prophetic inspiration. We think, too, that some support is given to this reasoning by the histories of the most celebrated epileptics in ancient and modern times.

Notwithstanding Dr. Howden's quotation from "Washington Irving," we are inclined to believe that Mahomet's epilepsy is still a matter of uncertainty. Hallam well remarks, there was no judicious historian to describe him till the 14th century, when everything connected with his early life was involved in obscurity. Granted, however, that he was subject to epileptic fits, it must on the same authority be admitted that he was religiously educated. No wonder, therefore, that the religious sentiment should be prominent in after life.

Of Julius Cæsar and Napoleon we may safely assert that there is no doubt; they were both epileptics. There is, however, no convincing evidence that either of them was religiously brought up, and in neither of them was the religious sentiment remarkable. Napoleon was taught to consider himself as the head of his family, and he carried out this teaching with a vengeance in after life; there was, it is true, a species of Italian superstition which clung to him through his career, and which could be easily explained; but it is simply impossible to connect religious sentiment with the man who hurled the Pope from his throne, and afterwards established the Papal religion in France, because it was the most likely to secure his own power. Concerning Cæsar it is sufficient to say the religious sentiment could have little concern with one who became the patron and protector of the infamous Clodius, the man who had attempted the chastity of Pompeia and who was the violater of the solemn mysteries of the Bona Dea.

We come now at length to what must be regarded as a most valuable portion of "Responsibility in Mental Disease," the observations on moral insanity and the means whereby insanity, be it mental or moral, may be mitigated or prevented. Dr. Maudsley enumerates with the same clearness as when considering musty law books the several classes of the "morally insane;" but it is only the "morally insane" from "congenital moral defect" that we can give a brief attention to.

The following statement represents accurately the position which the public may be said to have taken in reference to

this large and unhappy class: "Notwithstanding that the influence of hereditary antecedents upon the character of the individual has been admitted by all sorts and conditions of men, its important bearing upon moral responsibility has not received the serious consideration which it deserves."

Now there is in the "Fortunes of Nigel" a curious illustration of the double truth contained in this statement, which may possibly interest those who think the *novel* may teach and the wizard instruct. James and George Heriot are discussing the "villain" "Dalgarno." The Monarch begins: "Now there is a thing I fain wad ken in the way of philosophical inquiry. Did you ever hear of the umquhile Lady Huntinglen ganging a wee bit gleed in her walk through the world? I mean in the way of slipping a foot, casting a leglin girth, or the like; ye understand me?"—"On my word, as an honest man," said George Heriot, somewhat surprised at the question, "I never heard her wronged by the slightest breath of suspicion. She was a worthy lady, very circumspect in her walk, and lived in great concord with her husband, save that the good Countess was something of a Puritan, and kept more company with ministers than was altogether agreeable to Lord Huntinglen, who is, as your Majesty well knows, a man of the old rough world that will drink and swear."—"O, Geordie," exclaimed the King "This Dalgarno does not drink so much or swear so much as his father and he breaks his word and his oath baith. As to what you say of the leddy and the ministers, we are a' fallible creatures, Geordie, priests and kings as weel as others; and wha kens but what that may account for the difference between this Dalgarno and his father?" Thus much as to the belief of "hereditary influence," the influence of "blood," and then as to any serious consideration of its important bearing on the "moral responsibility" of the individual in question—we have the *finale*. "Take a father's malison with you, unhappy wretch," said Lord Huntinglen. "An' a king's, who is *pater patriæ*," said James.

And now, does not all this find itself repeated in the condition of things to-day? The hereditary influence is admitted; the moral irresponsibility which is its result is scouted. Sooner or later, however, the whole question of moral insanity will have to be faced. It will pass one day from a "medical crotchet" to a recognised fact. Already there are signs and tokens which should stimulate every noble-hearted adventurer in its gloomy and forbidden regions, and which should assure

him that the time will most certainly come, when it will be no longer possible to say of this department of insanity what before the advent of Pinel could, with great show of truth, be said of every department of insanity—

“ May this dreary abode be for ever unknown,
For ever by Virtue by Pity untrod.”

Dr. Maudsley is evidently in possession of manifold proofs which cannot be ignored. Here are some extracts from a letter sent to him by the friend of a child about whom he had been consulted: “It was at this time I became impressed with the feeling that she was not as other children; there seems to be no appreciation of the nature of truth in her.” At five and a half years old she is sent to a good school, and now she is nine years and a half, and the result: “I feel she does things which show a distressing want of moral susceptibility She has a total want of affection Her maternal uncle is in an asylum on account of similar deficiencies.”

The author of “Female Life in a Prison” writes thus: “The child looked as if fresh from the holy keeping of a mother’s love. Yet she was one of the most painful instances of premature vice and depravity that could be found. From her lips it has been the matron’s unpleasant lot to hear the foul and obscene words which escape in excited moments from the most unprincipled of prisoners. One would believe on hearing her, and on looking at the pale, childlike face confronting you, that she was *born bad*.” Mr. Hughes, the late schoolmaster of the Bristol Union, a most successful teacher, one of whose reports is in the Blue Book for 1869, frequently told us that there were some boys whom he could do nothing with: “they were thieves, and thieves they would remain; they were liars, and liars they would remain.”

But perhaps the most remarkable case on record in modern times is that of “Du Mollard, the French wolf,” as he was called. A full report of it appears in “Household Words” for ’62, and we shall freely quote from it, because we desire to exhibit the wretched creature, not merely as an extraordinary specimen of moral insanity, but because he has lately been presented to the public for good and wise purposes, and because such presentation, and the magnificent reception attending it, is one of the most remarkable signs of the times on the subject of moral insanity, and should be the greatest encouragement to Dr. Maudsley and all those who, like him, are compelled to accept the fact of its existence.

For years this man, if he had not practiced murder as "one of the fine arts," had pursued it as a trade. Helpless servant girls, hoping to obtain situations, had been one by one decoyed into the woods, and there murdered and buried. At length suspicion was aroused, and Du Mollard was arrested and tried. The articles taken from the victims and hidden by the murderer were produced at the trial. They amounted in all to twelve hundred and fifty, and contained amongst a multitude of miscellaneous objects "seventy handkerchiefs, fifty-seven pairs of stockings, twenty-eight scarfs, thirty-eight caps, ten corsets, and nine gowns." The Procureur General demanded the extreme penalty of the law against "an habitual professed assassin, whose life had been one long outrage and defiance of all laws, human and divine."

After the jury had retired, a gentleman in the court observed, "I have never been able to condemn a man to death, but I would in this instance have signed with both hands for the guillotine." Of course he was condemned and guillotined, and perhaps the first feeling of every heart would be approbation of the sentiment expressed by the Procureur General: "There is not any penalty of man's enactment that can attain the standard of his desert;" but if we are to take Socrates as the just representative of Grecian intellect—and Dr. Maudsley bids us do so—and if Horace is to be regarded as a fit exponent of the opinions of the Rome of Augustus—and we see no reason why he should not—it is almost certain that if this man had lived in ancient Greece or Rome, however, he might have been treated, poisoned, or strangled, or liberated, he would have been at all events considered mad.

In the dialogue on "Prayer," the case of "Orestes," a double and deep dyed murderer, is discussed. Socrates puts the question, "I only ask you, do you think if Orestes had been in his senses, he would have dared to do what he did?" And again, "Neither he nor anybody else would have done it." Horace, alluding to the very case that was cited by Socrates, though he makes a Stoic speak, is evidently propounding his own views and those of his contemporaries when he calls Orestes "demens," and exclaims—

Populum si cœdere saxis
Incipias, servosve tuo quos cœre parâris
Insanum te omnes pueri clamentque puellæ.

But in the case of Du Mollard, and in the nineteenth century, the plea of insanity was never once urged, and yet the man was utterly insane, morally insane. Everything

connected with him demonstrated it; his callous behaviour at his trial; his complaint of the cold draught in the court; his similar complaint on his way to execution; the mournful words of the priest who attended him: "I shall do nothing with him; the mind is too coarse and brutified. It is not with him as with others. Here it is one profound obscurity." His phrenological development told the same tale. "The skull enormously large at the base, sloped upwards and backward until it terminated almost in a cone. In front rapidly receding it presented a forehead 'villanous low.'" Again, "The cruel, brutal-like character of this head, was due rather to the absence of almost every good feature than to the extreme development of the bad. It was a type of skull commonly found among nations yet beyond the pale of civilization." Now eighteen years after this man had been effectually disposed of, and when the horror inspired by his crimes must have greatly subsided, he has been dug out as it were from his charnel house and held up to the gaze of the public, not to be scorned or loathed, but to be weighed in the balances of Philosophy and Philanthropy, to be reflected upon, and turned, if possible, to profitable account. Dr. Oliver Wendell Holmes has performed this adventurous feat. In his book "The Poet at the Breakfast Table," which has been greedily purchased, he considers the case, and in his own satirical and singular manner compels a startled public to listen.

You may feel pretty sure that our friend of the private cemetery was not the child of pious and intelligent parents; that he was not nurtured by the best of mothers, educated by the most judicious teachers; and that he did not come of a *lineage** long known and honoured for its intellectual and moral qualities.

And again—

The traditionists in whose presumptuous hands the science of anthropology has been trusted from time immemorial have insisted on eliminating cause and effect from the domain of morals. When they have come across a moral monster they have seemed to think that he

* In reference to the power of *lineage*, which may account for more things than birth can explain, Miss W. M. L. Jay, the author of "Shiloh," writes—"It must be one of those curious cases of intermittent hereditary transmissions which now and then startle families with what appears to be the introduction of a new type, but is only the restoration of an ancient one. Probably the blood of some old time German actress, or Spanish *cantatrice*, after running under ground, as it were, for two or three centuries, flashes up to light again in this 'Mrs. Danforth'—showy, fluent, haughty New Yorker of our day."

put himself together, having a free choice of all the constituents which make up manhood, and that, consequently, no punishment could be too bad for him. I say hang him, and welcome, if that is the best thing for society; hate him in a certain sense, as you hate a rattlesnake, but, if you pretend to be a philosopher, recognise the fact that what you hate in him is chiefly misfortune, and that if you had been born with his villainous low forehead and poisoned instincts, and bred among creatures of the *races maudites*, whose natural history has to be studied like that of beasts of prey and vermin, you would not have been sitting there in your gold-bowed spectacles, and passing judgment on the peccadilloes of your fellow-creatures.

From the American extracts, and Dr. Maudsley's book, we see how blood and training are concerned in this matter of moral insanity and consequent moral irresponsibility. To us it appears that the difficulty of blood in the adult or the grown delinquent is insurmountable, and this conclusion, however sad and deplorable, would seem to be that to which Dr. Maudsley is reluctantly compelled to give in his adhesion. "It would be quite useless to inculcate rules for self-formation upon one whose character had taken a certain mould of development." Again: "We cannot efface the work of years of growth, cannot undo his mental organisation;" and again, in "Body and Mind"—"It is still true that the foundations upon which the acquisitions of education must rest are inherited, and that in many instances they are too weak to bear a good moral superstructure."

In such cases, however melancholy may be the admission, the weak must perish; but if the "fate of inheritance constitutes the virtue of the good," and if, as Dr. Maudsley declares, and good Bishop Butler before him asserted, there be *nulla virtus*, because of such inheritance; then, assuredly, we are safe in believing that in the case of the hereditary bad the fate of inheritance constitutes their misfortune, and because of such inheritance there will be *nulla imputatio* with Him who, as the Judge of all the earth, will do right.

For the congenitally bad, if their case be taken in time, there is hope. Let a proper system of education be pursued. Let the will be gradually strengthened; the air we breathe and the food we eat, and the clothes we wear, the limbs that are ours, the faculties we possess—let us strive to think of them, and to understand them all; then we shall be enabled as rational creatures to remove ourselves from evil marriages, and to consider in our marriages our offspring as well as ourselves. Thus, too, shall we be in a position to make head

against the vice of intemperance and to eschew the pursuits of cruelty.

This we think is Dr. Maudsley's teaching, and to such teaching we cordially assent. We hold that its adoption and extension will hasten that Millennium which assuredly shall come, when the convict's cell shall close, and the hangman's rope be broken for ever; and we believe that in pleading and contending for it, more than by "burnt offerings and sacrifices," men are rendering themselves acceptable to Him who, concerning Himself and every work of His hands, is continually saying to every intelligent creature whom He hath made, "Come now and let us reason together."

We cannot conclude these remarks without expressing our admiration for the fearlessness with which Dr. Maudsley propounds his opinions, and the ability with which he more than holds his own against most formidable opponents. We have received much valuable information from his pages, and some of his beautiful passages will long linger in our memory. It is true we have differed with him upon some points, but we assure him we have done so in no censorious and carping spirit, but oftentimes with diffidence, and always with regret.

Physiologie de la Volonté—PAR A. HERZEN. Translated from the Italian by DR. CH. LETOURNEAU. Paris: Baillière, 1874.

The author does not pretend to have set forth any new philosophical views in this little book; he modestly claims only to have collated observations, selected examples, and expounded arguments in such a way as to render familiar to those who are not acquainted with physiological researches, the application of the physiological method to the study of psychology. Thanks to the progress of chemistry, he says, we have ceased to believe that the forces elaborated by the organism are something new and special, springing up spontaneously in it, and having nothing in common with what are ordinarily called the *physical forces*. "It is time to abandon this prejudice, which has so long impeded the progress of exact observation in the most difficult field of study, that of psychology; it is time to recognise, through an impartial analysis of facts, that all the dynamical phenomena, which seem to us to be a spontaneous emanation of the organism, are simply special modifications of the impressions

which it receives from the external world. We arrive then at this simple and clear result, that *the organism is a focus of material and dynamical transformation*. To render this mode of viewing it easily appreciable by all minds, is the aim of this 'essay.'

The first chapter is devoted to a discussion of the nature of the soul, which is shown to be nothing more than the dynamic complexity that corresponds to the material complexity named body. Body and soul are inseparable, the one impossible without the other, and the one disappearing from the scene when the other disappears. Nevertheless, they are both eternal, for they undergo metamorphosis, passing from the organic world into the inorganic world, and beginning again the cycle under new forms. A kind of immortality, which, as the author justly suspects, will appear a little frightful to the egoism of those who are not disposed to foresee with calm indifference the inevitable annihilation of their individualities!

In the second chapter the author treats of the vital force, concluding that what has been so long regarded as the mystery of mysteries, life, is not an immaterial entity, an essence inhabiting for a short time a perishable body from which it will ultimately take flight, like a bird from its cage. It is simply the result of the simultaneous and harmonious act of a number of processes capable of being isolated, suspended, separately excited, but which are all summed up in an incessant material interchange between the organized machine and the external world; these being mechanical, physical, and chemical.

In subsequent chapters he sets forth, in a clear and popular style, the principal functions of the nervous system, giving to the physiological doctrines a psychological application; and his last chapter is concerned with the physiology of the will. In it he pours abundant scorn on the doctrine of the freedom of the will, pointing out how the illusion of freedom has arisen, how much mischief it has worked, and how great hope for the time to come there is in the recognition by mankind of the universal reign of law, and of their responsibilities under the stern necessity of universal causation.

We have hardly done justice to the author by the bold statement of his conclusions which we have given. They will appear less startling to those who follow the arguments which lead to them. His little volume is popularly and earnestly written, contains a clear exposition of the bearing

of physiological researches upon psychology, and will repay perusal.

Die organischen Bedingungen der Entstehung des Willens. Eine physiologisch-psychologische Analyse. Von Dr. PETER CHRINELOWSKI. Leipzig. 1874.

This is another contribution to the study of the will from a physiological standpoint. It consists of a careful and painstaking analysis of the simpler phenomena of the will as observed in movements, the author refraining on the present occasion from dealing with the will in its relation to the thoughts and feelings. He devotes two chapters to a full and detailed analysis of the phenomena of reflex action, simple and complex, a third chapter being occupied with a discussion of inhibitory phenomena. It is in the possibility of inhibiting movements that he finds the beginning of the phenomena of will; without this power, he says, our whole activity would be reflex action. In two short concluding chapters he discusses the relation of idea and of will to movements. He arrives at the conclusion that the will is nothing original, nothing simple, but something acquired, something compound; and that it only begins when movements are not effected or inhibited directly by stimuli, but by ideas accompanied by feelings, these having relation to what is pleasing or displeasing to the individual.

Bedingungen des Bewusstwerdens. Eine physiologisch-psychologische Studie. Von Dr. JULIAN OCHOROWICZ. Leipzig. 1874.

This physiologico-psychological study consists of four chapters: the first of which treats of the physical conditions of consciousness; the second, of the anatomical conditions; the third, of the physiological conditions; and the fourth, of the psychical conditions. The task which the author has set himself is to answer this question—"Under what conditions does the phenomenon of consciousness arise, and without what conditions can it not arise?" He deals with the subject entirely from an empirical point of view, putting aside all questions concerning the essential nature of spiritual phenomena, or, as is usually said, the existence of the soul. We think that he has done his work well, and regret that within

the space of a brief notice it is not possible to give the reader an adequate idea of the manner in which he has acquitted himself of his task. In order to do that, it would be necessary to enter into an elaborate discussion of the complex and difficult subjects with which his essay deals—in fact, to write an essay almost as long as his.

PART III.—PSYCHOLOGICAL RETROSPECT.

Public Asylum Reports for 1873.

(Continued from page 307.)

NEWCASTLE-ON-TYNE.—*Ninth Annual Report.*—Mr. Wickham enters into the following defence of Australian tinned meats, which they, perhaps, hardly required:—"The Australian tinned meats, which are now freely used, at first met with much opposition, and, even now, a few of the more ill-humoured patients object to them. To some of the better disposed ones the flavour is at first a little disagreeable, but the same may be said of fairly intelligent people outside, and they are so very few here that it is impossible to consider them in the arrangement of a diet table. As for its nutritious qualities, I have only to say that the patients eating it (excluding those suffering from wasting diseases) gain, or at least retain, their weight. The recovery rate for the three years I have held office has been 45·9 per cent. as against 33·5 per cent. during the previous five years, and the death rate has been steadily decreasing, while the necessity for ordering extras for the sick is reduced to the very lowest minimum. The Australian meat has been largely used during that time, and, though I do not wish to ascribe these satisfactory results to its agency, it must be apparent that it has not interfered with the primary objects of the institution."

The argument to be derived from the statistics of the several years is, however, fallacious. It is of course true that the use of the meat, and other points in the management, did not obviate the apparently good results quoted, but an examination of Tables III. and IV. will show that the higher recovery rate and lower death rate depends really on a falling off in the admissions. The recoveries of any year are largely derived from the admissions of previous years; when the admissions fall, the rate is each year calculated in a smaller number of admissions than that of their own year, and so appears larger than it would if the number of admissions continued uniform. Similarly for the deaths, the death rate is higher among recent admissions than among chronic residents. An average of asylums, calculated by us some years ago, showed a death rate among patients of less than one year's residence of 15·5 per cent., among those of five years' residence of 5 per cent. In Scotch asylums, the figures given by the Scotch

Commissioners in Lunacy are 16·9 for the first year, and from 3·9 to 6·4 after the fifth year. Therefore, with a regular decline in the number of admissions, the death rate should (*cæteris paribus*) decline also.

The question of seclusion takes a prominent place in this report. The following is from Mr. Wickham's report, and, apart from the fact that the seclusion in question ought to have been duly recorded, is by no means a mere apology, but to a great extent a vindication of his treatment. Such a case as he describes cannot be treated except by restraint or seclusion or by some worse means, as, for example, large doses of morphia. Cases of other types requiring seclusion as the most humane means of treatment, must from time to time occur in every asylum.

The treatment pursued has been much the same as in former years. Seclusion has been largely employed with beneficial results, both as regards the recoveries and the small number of the deaths. In one case to which the Commissioners specially refer—and to whom I beg now to express my deep sense of obligation for the forbearance with which they treated the omissions in the Medical Journal—the seclusion was more than usually prolonged. Perhaps I may be permitted to quote a portion of the letter which I addressed, at the request of the Commissioners, to the Secretary of the Board in explanation of this circumstance:—

“With reference to the prolonged seclusion of E. T., I have to inform you that she on two occasions nearly killed a nurse, injuring her so severely that she never was the same woman up to the day of her death, in a struggle with another patient, M. T. E. T. is one of the most intensely homicidal patients I ever saw, and no one's life is worth five minutes' purchase when she is at large. After she had made several dangerous assaults, I, having given the case my most anxious consideration, and having made repeated and prolonged examinations of the patient, was reluctantly compelled to order her to be placed in seclusion. It must not be supposed, however, that she looks upon her seclusion as a punishment, which certainly was never intended. The poor woman is, I firmly believe, far happier in her bedroom than she was before, when she was constantly being irritated; and, so far from expressing any wish to get up, it is with difficulty that on the few occasions that I have three nurses to spare, she can be got to take a walk. Latterly this has been given up, because I believe she suffers from valvular disease of the heart, and it was thought inadvisable that she should be put to a struggle every time she was desired to go out—a struggle with her being of the most exhausting kind—and the weather has been such as to preclude regular exercise in the open air during the last six months. I only adopted this manner of treating her case after carefully weighing all the facts, when I was obliged to come to the conclusion that, as her homicidal propensities had so much developed themselves, the safety of the patients and of the nurses seemed to me to demand that in so exceptional a case exceptional means should be taken, more especially as the poor woman herself appeared to be happier alone than in the company of others.”

She now, I may add, spends the greater part of the day in an airing court, by herself, or in her bedroom, with the door unlocked, which is not, I understand, according to law, “seclusion,” though from the fact that she never leaves the room unless invited to do so, the isolation is as complete as if the key were turned. It is proper to observe that this is a case of chronic insanity, in which there is no hope of recovery. She is supplied with books, knitting, &c., and is, to all appearances, perfectly happy; but, at the same time, her homicidal attacks are so sudden and so extremely violent, and the body of the patients in whose ward she lives are so averse to associating with her, that it would be unjustifiable to sanction it. With reference to the case, I venture to make two remarks. First, that it is not a proper case for the wards of an ordinary lunatic asylum. This woman inflicted

such injuries, in the course of her savage assaults on a nurse, that she never held up her head again, and shortly afterwards died in a struggle with another patient. Had E. T. killed the nurse herself she would have been sent to Broadmoor; but because she has been, by my adopting measures which appear severe—although it happens in her case they are not so—prevented from taking anyone's life, she is kept here, virtually a criminal, but not so in the eyes of the law. Surely such a case—and she is only an example of many—should be provided for in the State Asylum, where the staff of nurses is very large. It would be easy to form regulations for the admission of such cases, so that the law should not be abused by the sending of patients for whom such a provision is not necessary. And, secondly, with regard to seclusion itself. That there has been a reaction lately in this matter is evident. Dr. Rogers, the Medical Superintendent of the County Asylum at Rainhill, in Lancashire, read a most able and interesting vindication of this form of treatment at a meeting of the Medico-Psychological Society, in 1872, and the discussion which followed, in which some of the ablest members of the medical profession in the specialty of mental disease took part, showed there was a general feeling among those present that Dr. Rogers was in the right. The indiscriminate outcry against seclusion marks an interesting epoch in the history of empiricism, and those whose boast it is that they never employ it at all, in season or out of season, are as reasonable as if they should say that they never prescribe a blue pill because forty years ago it was the fashion to saturate one's patients with mercury. It is a matter of common observation with the medical officers of asylums that certain irritable and mischievous patients are never so quiet and happy as when they are confined to bed, or, in other words, placed in seclusion for the treatment of some trifling complaint which calls for rest and consequent isolation during the day, whether in a dormitory or in a single-bedded room. Patients who have recovered from insanity have often told me how they wished I had secluded them more, as the having to get up when they felt themselves unable for it, and the having to mix with the rest, was a constant source of irritation to them; and, besides, they could never look back on the exhibition they made of themselves to their fellow creatures with any feelings but those of disgust and horror. Asylum life itself is but a vast seclusion, and those who dream that the days of seclusion are numbered, should also advocate the abolition of the Lunacy Acts. No doubt it is a form of treatment which is liable to be abused, and it is no answer to this objection that so is any other; because medicines and instruments of restraint may be kept under lock and key, and served out to the attendants in such a way as to leave them no chance of misusing them, while seclusion is in every attendant's power. And as an experienced hospital surgeon can decide in an instant on a capital operation, and so lead his students to imagine that he has not bestowed any thought on the case, so the practised medical officer of an asylum may, without hesitation, order a patient to be secluded in such a way that the attendants may think there is no responsibility incurred. But if a valuable, a safe, and in some respects an unequalled remedy is to be thrown aside for such considerations as these, there is an end of scientific treatment. The proper way to meet the abuse of seclusion is to assure oneself, by selecting conscientious and humane overseers for the subordinate officers, and by well-timed personal visits to the wards, that no patient is ever secluded without the immediate knowledge of a medical officer, and not to indulge in vague dreams of its abolition, which can never be realised, even if it were desirable that they should be.

Although we agree with Mr. Wickham in his main argument, we do not desire to be understood as thinking a frequent recourse to seclusion or restraint at all inevitable or necessary. With judicious and experienced attendants a difficulty may be tided over without the necessity of resorting to it. But, unfortunately, such attendants are not always at hand. Occasionally a patient is found utterly unmanageable until placed under the care of some particular attendant, who possesses precisely the temperament suited to him. In small

asylums there are but few changes of wards and attendants possible, and this may to some extent account for the fact that seclusion is rather more common in the smaller than in the larger asylums, though it may be that the closer supervision leads to a more accurate record.

The following extracts show that in some of the larger asylums seclusion is largely resorted to. The two first are respectively from the Medical Superintendent's and Commissioners in Lunacy Reports at Prestwich :—

The isolation of a patient in a room during the day has been resorted to in the treatment of the majority of admissions, and in all cases of maniacal excitement where the necessity of mental quietude is indicated. Where many persons are gathered together, as in an asylum, and where epileptics constitute nearly a fifth of the entire number, seclusion or separation is at times necessary to protect the quiet and orderly from the disorderly. In these cases, and in the paroxysmal and impulsive forms of insanity, rest with seclusion has been prescribed with the best results. I consider seclusion an important aid in the moral treatment of the insane, and in many stages of the malady a most merciful and beneficial means of cure. No matter from what cause it is adopted, its occurrence is faithfully recorded.

We found four men and five women in seclusion ; one of the latter seems to pass most of her time in seclusion, and, according to the Medical Journal, has now been secluded for nine weeks without interruption. A male patient appears some time since to have been secluded for twelve consecutive weeks, and in many other instances seclusion seems to have been adopted, from one to several weeks in succession. Such prolonged seclusion must, we think, be prejudicial to the patients, and every effort should be made to diminish it.

Dr. Hearder, at Carmarthen, finds that the increased experience of the attendants gained by years of training is enabling him to reduce seclusion to a minimum :—

As I have before stated, the health of the community has been remarkably good. There has been no serious accident. Many of the chronic cases, which in past years were noted for noisy, violent, and destructive habits, have been quiet, orderly, and easily managed—a result of the improvement in their surroundings, and of the increased tact and experience of the attendants, acquired by the training of years. It has been necessary to resort to temporary seclusion in but few instances, and these chiefly with epileptics, on account of paroxysms of excitement following their convulsive attacks. In the case of one woman modified restraint was deemed needful. This was accomplished by merely sewing the sleeves to the waistband of her dress. For several weeks previously she had required the unremitting attention of two nurses, and restraint was employed to avoid the risk of injury which was incurred during oft-repeated struggles with her. While her hands were confined she was quiet, cheerful, contented, and happy ; when they were at liberty she was sullen, abusive, violent, persistently destructive, and unceasing in her attempts to nudyify.

At the Cornwall Asylum, also, seclusion is being practically abolished, apparently merely as an arbitrary measure, as we do not find any circumstance noted as rendering this more possible now than formerly ; nor is any effect resulting from the abolition, good or bad, recorded. The Commissioners say :—

No one was yesterday in seclusion, and only one—a man—was restrained, but so treated for surgical reasons. With reference to the great alteration which has taken place in the treatment of patients here, both in regard to the number of patients secluded and the extent of such seclusion, during the 15 years ending

in 1871, a table, drawn up by Dr. Adams for quinquennial periods, shows that from 1857 to 1861, 1,868 patients were under treatment, and the amount of seclusion was 4,157 hours; from 1862 to 1866, with 2,324 patients, seclusion was reduced to 1,514 hours; and for the five years from 1867 to 1871, with 2,715 patients, to 179 hours.

Mr. Adams says:—

Seclusion has been had recourse to in the case of three men and seven women. The total duration for the year has been less than 20 hours. With regard to this question of seclusion, the Commissioners in Lunacy, in their last annual report, state (referring to some asylums) that in a remedial point of view it is in many instances employed unnecessarily and to an injurious extent, and for periods quite unjustifiable; and that, while not doubting its utility in certain cases, they consider that it should be had recourse to as seldom as possible, and that its frequent employment is not only bad for the patients, but that it does injury to the attendants by leading them improperly to seek relief from the duties and responsibilities involved in a constant and vigilant supervision of those committed to their care. Believing such to be the case, it has been the practice here for some years to use seclusion as little as possible, and never to permit its employment except by medical order. The result is that the amount of seclusion during the past year has been less than was often found necessary in a single day some years ago, and this notwithstanding a very large increase in the number of patients treated. There are, however, and always will be, cases in which its use for short periods is the most suitable, as well as being the most humane, method of treatment.

At Rainhill, the Visiting Commissioners note the large proportion of inexperienced attendants as probably increasing the amount of seclusion.

The greatest variation appears to exist not only as to number of instances in which seclusion is resorted to, but also as to the duration of the individual instances. At Lancaster, we find the average duration stated to be 1 day $3\frac{1}{2}$ hours over 395 instances. In the majority of cases an instance of seclusion is spoken of as a day. In others the periods appear to be reckoned by hours, as at Abergavenny, where two-thirds of the instances were for less than three hours.

At Carlisle, we find the following in the Commissioners' entry:—

The instances of seclusion for maniacal or epileptic excitement, or for violent propensities, have been on the male side 225 applicable to 21 men, and on the female side 102 applicable to 23 women. Of the men, one, an epileptic, was secluded upon 60 of the occasions, usually for a whole day at a time; and another, of homicidal propensities, and since removed to Fisherton House, accounted for 67 of the occasions, for the most part of a day's duration each. The amount of seclusion for the above causes is no doubt large, but it must be remembered that it refers to a period of 18 months. Besides the above-recorded seclusion, 21 men and 19 women are entered as having been kept in their rooms on account of bodily ailments—the former upon 133, and the latter upon 121 occasions.

We find here a classification of the reasons for seclusion, which reminds us that there is still room for improvement in recording seclusions, if fair comparisons are to be made between different asylums. We believe there are still several asylums where seclusion is largely resorted to, but not so called, except it be for violent propensities. If for maniacal or epileptic excitement, or to prevent the

intrusion of others, it is called "medical treatment," and no notice taken of its being also seclusion.

At Brookwood a somewhat ingenious escape from the name of seclusion is effected. We think, however, that if one attendant can manage a patient in a single room, one, or at most two, might do so in an airing court or in an open field. If, however, the procedure is for the attendant to act as a lock to the door, we hardly detect the distinction.

There is no record of any instance of seclusion or restraint since last visit, and both, indeed, have for some time past been practically disused in this Asylum. Excited patients are placed in single rooms, where they are kept in special charge of an attendant, but the doors are not shut. We found one man yesterday who was in a single room under these conditions. It may be well here to allude to the fact that there are no padded rooms in either division, and that the proportion of single rooms is much below what is usually deemed necessary, in other county asylums, there being only 56 such rooms here, or rather less than one-twelfth of the total accommodation. Dr. Brushfield is of opinion this is sufficient, and that as a principle association at night is preferable to isolation.

We find references in nearly all the other reports to the amount of seclusion, as this is more or less distinctly referred to in the entries of the Visiting Commissioners. It appears to us that to proscribe seclusion as seclusion is a mistake. It is unquestionably the best and most humane treatment of certain cases, or if we said of certain symptoms we should, perhaps, more correctly express our opinion of the proper place of seclusion. Treating symptoms must be had recourse to when they assume an urgent character, and pending the effect of treatment directed by the real nature of the case; often, also, symptoms are all we have to treat, an accurate further diagnosis not being possible. The special symptoms calling for seclusion are chiefly noise, violence, and other manifestations of excitement, and these are often in an asylum more frequent than they need be from the absence of proper treatment, due usually to the want of sufficient means of occupation and amusement and of experienced attendants; at times possibly to the inappropriateness of more strictly medical measures. A large amount of seclusion points, therefore, to an unsatisfactory state of the patients from some of these reasons, but it is not itself to be condemned. The absolute abolition of seclusion must, we fear, be purchased sometimes by injury to the patient himself, or more often to those about him from his noise and violence. For example, the recommendation to treat a case of acute mania by prolonged walking exercise, when he is really in some danger from exhaustion, has always seemed to us very mischievous.

Prolonged seclusion can, however, rarely be justifiable, as it must be attended by serious risks to health. We should consider seclusion prolonged that extended beyond one, or at most two, consecutive days.

We find in these reports only two or three casual references by the Commissioners in Lunacy to the subject of shower or plunge baths, but no statement anywhere as to the extent to which either of these

are used either with medical or punitive intentions. Yet these are as open to abuse as seclusion, and require, we think, equally jealous watching. We know that in many asylums the shower bath is never used, and that in some such an apparatus does not exist; but we should like to know to what extent it is employed in those asylums where it is a staple article in the treatment.

BERKSHIRE.—*Third Annual Report.*—We miss from this the report of the Visiting Commissioners; we suppose it has been crowded out by the pressure of other matter. We note throughout all the reports we have examined a marked absence of strictly medical observations, and hope to find our clinical columns the richer for it. We hardly, however, appreciate the following, either as material for our clinical column or as instruction for the Visiting Magistrates:—

Four males and four females were affected with epilepsy, and one female with chorea. The latter, who was in feeble health, pale, and much reduced, presented that characteristic adventitious modification of the heart sounds called a “bellows murmur,” so often found co-existent with chorea, and which, in such cases, is generally considered to depend upon anæmia—a diseased state, indicated by debility, pallor of the face, and impoverishment of the blood.

A partly medical, partly domestic, history of several cases is given at some length. With regard to two of these, we are told “Any details regarding the method of treatment adopted in these two very successful cases would be foreign to a report of this kind; but it may be remarked that they have produced the conviction that it is not alone in those diseases of the nervous system, due to a specific animal poison, that the administration of certain well-known therapeutic agents, in large doses, is likely to be productive of signal benefits.”

The popularisation of medical histories for annual reports is perhaps useful in attracting subscriptions to various charitable institutions, though, even then, we always read them with pain; but we doubt whether there is any necessity whatever for their presentation in the report of a county asylum.

A history is given of the case of a criminal lunatic. We read, “At the time of his admission, as well as after he had been under observation some weeks, *beyond the mere fact of his insanity* the medical officers of the asylum could not discover anything in his general state which, in their opinion, seemed imperatively to demand his removal from gaol to the asylum.” The italics are ours. The judges at the ensuing, and again at the following assizes, wished him to be produced:—

Prior to this, the medical superintendent had expressed his opinion that the patient was quite capable of being put upon his trial, and of fully understanding the proceedings, although he was not prepared to say that he was a person of sound mind. A certificate was produced from him to this effect, besides a statement that he was coherent, able to converse sensibly on ordinary topics, and that the insanity in his case was of such a nature that a difference of opinion might probably arise in regard to its existence. This certificate was forwarded to the Home Secretary, but he refused to grant a warrant for the patient's removal to Reading for trial, and laid down the law that such a warrant could not be granted unless the patient was certified to be of sound mind by two medical

men. The patient and his wife were naturally much chagrined, and inveighed bitterly on the cruelty and injustice of the law, which prevented the former, who was both capable and desirous of being tried, from appearing before a jury. The circumstances of the case having excited commiseration, a short time previous to the next assizes, which were held in July last, the patient's wife was advised to have her husband examined by two neutral local medical men, which was accordingly done, and they being of opinion that he was of sound mind, wrote certificates to that effect, which were forwarded to the Secretary of State, who then granted the long-desired warrant for his removal to Reading Gaol. The prisoner was in a few days afterwards tried at the assizes, and acquitted by the jury on the ground of insanity, although the judge, in summing up, remarked that no evidence had been given, and nothing had been adduced, to prove that at the time when the prisoner fired the gun at his brother he was insane. As a necessary consequence of the verdict returned, he was ordered to be detained in custody during her Majesty's pleasure. The facts in connection with the history of this case, which have just been narrated, appear to lend weight to the opinion entertained by many that the entire law relating to criminal lunatics stands much in need of revision. It is likewise hoped that it will not be considered presumptuous to express an opinion that any prisoner committed for trial should not be transferred from gaol to the asylum unless his symptoms are of so aggravated a kind as to preclude the possibility of his being retained in prison. Also, that if from that reason the prisoner's removal to an asylum becomes absolutely necessary, he should be removed to the State Criminal Asylum, and should, as a matter of course, be brought back to stand his trial at the assizes, without it being necessary to have him certified to be of sound mind, which it is obvious in the majority of cases would be an impossibility.

This case is interesting from several points of view. From the peculiar nature of the man's insanity, Dr. Gilland succeeded by a sort of side wind in evading the present state of the law, which, in case of any prisoner being found to be insane before trial, brands him as a criminal, without trial, and leaves him so, so long as his insanity continues. Dr. Gilland's suggestion that these cases should be sent to the State Asylum we fully endorse. Now that it appears to be admitted that the criminal (?) insane at Broadmoor have a fair claim to be relieved from association with the insane criminals there, we hope that the contaminating presence of not a few of the latter in our county asylums will not be much longer overlooked.

(To be continued.)

PART IV.—NOTES AND NEWS.

ANNUAL GENERAL MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Council met at the Royal College of Physicians at 10.30 a.m., Dr. Harrington Tuke, president, in the chair.

THE MORNING MEETING

was held in the Library of the Royal College of Physicians at eleven a.m., and the afternoon meeting at two p.m., of Thursday, August 6th.

Members and Visitors present:—Dr. Rogers (president), Dr. Guy, Dr. Ferrier, Dr. Harrington Tuke, Dr. Maudsley, Dr. Boyd, Dr. Paul, Dr. Blandford, Dr. Sibbald, Dr. Monro, Dr. Wood, Dr. Mould, Dr. Hack Tuke, Dr. Sutherland, Dr. Christie, Mr. Bayley, Dr. Gilland, Dr. Wickham, Dr. J. A. Campbell, Dr. Batty Tuke, Dr. W. Williams, Dr. J. Stewart, Dr. Jepson, Dr. Stewart (Dublin), Dr. Rayner, Dr. Mickle, Dr. Yellowlees, Dr. Grant Wilson, Dr. Stilwell, Dr. Sankey, Dr. E. S. Willett, Dr. Orange, Dr. Brushfield, Dr. T. O. Wood, Dr. Adam, Mr.

Fletcher Beach, Dr. Hemming, Dr. W. Clement Daniel, Mr. Warwick, Dr. Pedler, Dr. J. Bywater Ward, Dr. Rhys Williams.

Dr. HARRINGTON TUKE, the President, took the chair, and, in opening the proceedings, said he had a short but very pleasant duty to perform—namely, to thank the members of the Association for the consideration and kindness he had received at their hands during his year of office, and to congratulate them on the choice of his successor. He should hardly have felt so glad at his pleasant duty, which was also a painful one, but that he remained among them, he hoped the personal friend of most of them, and he hoped to have as much pleasure in their society as he had previously experienced (applause).

Dr. Harrington Tuke then vacated the chair, which was taken by the new President, Dr. T. L. ROGERS, who, in taking the chair, said that he would, in accordance with the usual custom, defer his address until the afternoon, and proceed at once to business.

On the motion for the confirmation of the minutes of the last general meeting considerable discussion arose, Dr. Harrington Tuke, Dr. Maudsley, Dr. Christie, Dr. Boyd, and others stating that the short-hand writer's report of the proceedings was not a correct account of what took place. Dr. Harrington Tuke, who had moved that the minutes be not confirmed, subsequently withdrew the amendment, feeling satisfied with the general expression of opinion he had elicited from the members that the report was incorrect.

An amended form of minutes was then drawn up by the Secretary, and agreed to.

Dr. D. HACK TUKE then rose and said he thought they had another duty to perform, and that was to express their cordial appreciation of the way in which their late President had filled his office during the year. He begged to move that their cordial thanks be presented to their ex-President for his ability and urbanity during his term of office.

Dr. YELLOWLEES had great pleasure in seconding that, if, indeed, it was necessary, and in addition would like to add their thanks for his admirable hospitality.

Dr. WOOD said they might well believe that he did not rise in contradiction to the motion; but he believed that no similar motion was made last year. It was to supply that oversight, this being a convenient time, that he rose. He believed it was entirely an oversight that it was not done, and he trusted Dr. Tuke would not object to their coupling with their thanks to himself those also to Sir James Cox. He also thanked Dr. D. Tuke for the kind expressions which had been used towards himself.

Dr. HARRINGTON TUKE, in replying, said he could only thank them very much; while he considered it a great honour to have his name joined with that of Sir James Cox. He also thanked Dr. D. Tuke for the kind expressions which had been used towards himself.

The SECRETARY said he had received the following letter, which he read—

“Société Médico-Psychologique de Paris.

“Paris, le 1er Novembre, 1873.

“MONSIEUR LE PRESIDENT, — La Société Médico-Psychologique de Paris, dans sa dernière séance, a reçu de M. le Dr. Blanche, une communication du plus haut intérêt. Notre honorable collègue nous a fait part du sympathique et cordial accueil que vous lui aviez fait au Congrès Médical de Londres, il nous a transmis les vœux que vous aviez adressés, dans votre banquet, à notre Société, sœur de la votre, et dont les travaux ont le même but, sont dirigés dans le même esprit.

“La Société Médico-Psychologique de Paris, reconnaissante, à la fois, de votre sympathique souvenir, et de la bienveillance avec laquelle vous aviez reçu l'un de ses membres les plus justement estimés, m'a fait l'honneur de me charger du soin de vous adresser ses remerciements. Je suis heureux d'être l'interprète des sentiments de tous mes collègues; je vous prie, Monsieur le Président, de vouloir bien en faire agréer l'expression sincère à la Société Médico-Psychologique de Londres.

“Recevez, Monsieur le Président, l'assurance de la haute considération avec laquelle j'ai l'honneur d'être,

“Votre très dévoué confrère,

“A. MOTEF,

“Secrétaire Général.

“Paris, 161, rue de Charonne.”

Dr. HARRINGTON TUKE moved that the letter be received and entered on the minutes.

Dr. RAYNER seconded this, and it was agreed to.

The PRESIDENT said the next business would be the appointment of the place of meeting for the next year. Their Secretary would give them some information from their brethren in Ireland, who would be glad if they would meet in Dublin next year.

The SECRETARY said he had three or four letters from Dr. Stewart, stating that he wished to express the feeling of the Irish members, that they would like the society to meet in Dublin next year. He promised the society a very hearty welcome. He (the Secretary) also had a letter from Dr. Lalor, which stated that they would receive a very warm reception, and he could assure them every hospitality.

Dr. HARRINGTON TUKE begged to move that the society meet at Dublin next year. It was a long journey, but he was very anxious that they should oblige their Irish friends, and it was many years since they had met there.

The motion having been carried amid much applause,

The PRESIDENT said the next thing was to appoint the President for next year.

Dr. HARRINGTON TUKE said it was the general custom in their Council meetings to talk over what was for the best interests of the Association, though they could of course definitely arrange nothing. They had, however, that day agreed that it should be a recommendation by the Council to the general meeting to hold their next meeting in Dublin. He should, therefore, venture to propose a gentleman well known in Dublin, and a regular attendant at their meetings, who was highly known for his general talents. He would propose Dr. James Duncan as their next President.

Dr. BLANDFORD said he would second that, although Dr. Duncan was not personally known to him. He believed he was at that time President of the Royal College of Physicians for Ireland, and would be a very admirable President for their Society.

The motion was then put, and carried unanimously, and the meeting proceeded to the appointment of their hon. secretary.

Dr. CHRISTIE—I beg to propose as secretary my friend Dr. Rhys Williams. In doing so, I will take the opportunity of making a personal explanation in reference to my absence from the General Meeting last year. On that occasion duty compelled my attendance at Dartmoor, and as soon as I became aware of this, which, by the way, was but a day or so before the meeting, I wrote to the President and asked him how I should act. His reply was to the effect that he would explain my reason for absence, and at the same time offered to see that the Secretary's work was done. I also made out the agenda for business, and, in fact, put everything clear for whoever might act for me. Surely I could not have done more, and, therefore, I have great cause for complaint at the unhandsome and ungenerous way in which I was treated by being so unceremoniously ousted from the secretariat. I really did think that, after my long connection with the Association, I was deserving of better treatment than I had received at their hands; however, remembering the old proverb, "That it is an ill wind," &c., the Association are gainers in having a much better officer in my friend, and it therefore gives me great pleasure to propose him.

Dr. MOULD begged to second Dr. Williams. He for one very well recollected Dr. Harrington Tuke saying that he had no explanation from Dr. Christie, and there was a sore feeling amongst the members. It appeared that there was no secretary, and there were no minutes, nor anything—[Dr. CHRISTIE: Yes, there was.] He thought the fact of the matter was that Dr. Harrington Tuke should not give such good dinners. (Laughter.)

Dr. HARRINGTON TUKE said he must speak on this motion, for it touched the whole question of the minutes of their meeting. Dr. Christie's letter was in the report. He (Dr. Tuke) took the letter and stated its contents. He told the meeting that Dr. Christie was engaged on military duties at Dartmoor, and that the medical authorities did not think the meeting a sufficient reason for his going away. That account was put down in the report to the effect that Dr. Christie was called away, and that the business of the society was not sufficiently urgent for him to attend.

Dr. CHRISTIE said a little further on he (Dr. Tuke) said he had received no formal letter.

Dr. TUKE said all he could say was that that report was admitted on all sides to be manifestly wrong.

Dr. MAUDSLEY said it was not a question of the report, as a report, published subsequently, could not affect what happened at the meeting at the time. The report could have nothing to do with the removal of Dr. Christie from the secretarship.

The motion that Dr. Williams be reappointed Hon. Sec. was then put and carried unanimously.

Dr. WILLIAMS thanked the meeting very much for the honour they had done him.

The next business was the appointment of Secretary for Ireland.

The SECRETARY said that in connection with this he had a letter which would be received by all of them with regret. It was as follows:—

“Medico-Psychological Association

“(Irish Branch),

“Belfast, 3rd August, 1874.

“DEAR DR. WILLIAMS,—May I beg that you will kindly, at the ensuing annual meeting of the above Association, place my resignation before it as the Secretary for Ireland? Having been Secretary since the original formation of the Association, I think it will be admitted that I may now very legitimately retire, but in doing so I beg to say that my interest in the welfare of the Association will not be in anywise less than it always has been.

“Your obedient servant,

“ROBERT STEWART,

“Hon. Secretary for Ireland

“Dr. Rhys Williams, M.D., &c., &c.,

“Gen. Sec. Royal Bethlem Hospital.”

Then there was a note headed private, in which Dr. Stewart suggested as his successor, Dr. Maccabe. He begged to move, in consequence of Dr. Stewart's letter, that Dr. Maccabe, of Dundrum, be appointed Hon. Secretary for Ireland.

Dr. JAMES STEWART, as an Irishman by birth, and connected with the Society in Ireland, had great pleasure in seconding the motion that Dr. Maccabe should be appointed to succeed his (Dr. Stewart's) father. He would take the opportunity of making one or two statements which would give them an idea of the progress of the Association in Ireland since his father had been secretary. In the first balance-sheet he sent the number of members was twelve, while the present number was thirty. That was satisfactory, but it would be more so if it was known what difficulty there was in getting leave from the Irish asylums, and there was not the same inducement to join the meetings as in England. In the majority of Irish asylums there were no assistants—he believed there were only three county asylums in that country in which there were assistants. He thought it was very satisfactory that they should have urged thirty into joining under such disadvantageous circumstances. During his father's time the number of asylums in which a fit medical superintendent had been appointed had been very great. When he joined the Association he was one of only two in Ireland. It had, however, been considered that the success of appointing medical gentlemen to the head of the asylums had been so clearly established, and that they were competent to govern it throughout, that it was becoming a *sine qua non* that they should put a medical man in now. There was another point—namely, that in Ireland was given the first impetus to the separation of criminal lunatics from the others. It was by the strong representations of the Irish Commissioners that the Government was induced to make a central asylum, of which Dr. Maccabe was the superintendent. Since then the system had been carried out with great success. Personally he was well acquainted with that gentleman, and he could speak of the great pleasure which would be given to Ireland by his election.

The election of Dr. Maccabe as Hon. Secretary for Ireland was unanimously agreed to.

Dr. SIBBALD thought they should not allow this to pass without expressing the very high sense the Association had of the very valuable services which Dr. Stewart had performed as their Irish Secretary. He had been their Secretary since the foundation of the Association, and he had long been most honourably known both as an efficient superintendent and for his information and valuable writings on questions relating to lunacy in Ireland. He thought they should not allow that occasion to pass without recording on the minutes the deep sense that they all had of the many valuable services of Dr. Stewart. He should therefore beg to move that this Association accepts with extreme regret Dr. Stewart's resignation, and desires to place on record its deep sense of the valuable services he has rendered to the Association since its formation.

Dr. BOYD seconded the motion, remarking that Dr. Stewart had done a great deal to advance the Association.

Dr. STEWART stated that his father was the only surviving original member of this Society.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.



The Treasurer's Annual Balance Sheet, July, 1874.

RECEIPTS.		£ s. d.	EXPENDITURE.		£ s. d.
To Balance Cash in Hand	...	174 8 6	By Annual Meeting	...	...
To Subscriptions received	...	180 11 0	By Editorial Expenses	...	...
By Secretary for Ireland	...	28 7 0	Printing, publishing, engraving, and advertising Journal	...	243 18 3
By Secretary for Scotland	...	38 17 0			
By Sale of Journal, Messrs. Churchill	...	83 18 0	Sundries—Advertisements	...	...
			By Printing expenses of Quarterly Meetings	...	11 11 1
			By Treasurer	...	5 5 0
			By Secretary for Ireland	...	0 18 9
			By Secretary for Scotland	...	11 7 11
			By General Secretary	...	5 5 0
			By Balance in Treasurer's hands	...	213 6 0
		<u>£520 1 6</u>			<u>£520 1 6</u>

Examined and found correct,

G. FIELDING BLANDFORD.

ROYAL COLLEGE OF PHYSICIANS, August 6, 1874.

The PRESIDENT put the motion to the meeting, remarking that, as President, he could only say that such a resolution would meet the wishes of everyone connected with the Society, as everyone knew that no face had been more familiar to them than that of Dr. Stewart. It remained only for him to put the motion to the meeting. This he did, and the motion passed amid loud applause.

Dr. WOOD said it was their custom to thank the retiring officers for their services during the past year, and he thought Dr. Christie—

The PRESIDENT said Dr. Christie had made his explanation and put himself right, but he thought they could hardly go back so far in the matter.

Dr. WOOD said he must of course bow, but he felt very strongly that they had not done Dr. Christie justice, and he thought they were bound to do it if they could beyond what the President prescribed. It seemed that, from a combination of circumstances, Dr. Christie was ousted from his position, and he thought they ought to give him (Dr. Christie) the thanks of the Association. He felt very strongly on this point, but bowed to the decision of their chairman.

The PRESIDENT thought that, as Dr. Christie had had the opportunity of defending himself, it would be out of order to go back to the matter.

Dr. BATTY TUKE then moved the re-election of Dr. Skae as Secretary for Scotland.

Dr. MOULD seconded him, and the motion was carried unanimously.

Dr. BLANDFORD moved the re-election of the present Treasurer (Dr. Paul), remarking that this resolution required no words from him, and he would, therefore, simply propose it.

Dr. WOOD seconded this, and it was carried by acclamation.

In reference to the election of Editors,

Dr. YELLOWLEES said he looked on them as by far the most important of their officers. The President got the honour and the Secretary got the trouble; but the Editors had to do the chief work. They must all feel that their best thanks were due to them, and that it could not be in better hands. The public knew the Society through their journal, and the work connected with it had in the past been so well done that he begged to propose that their best thanks be given to Drs. Maudsley and Clouston, and that they be re-elected.

Dr. WOOD seconded this, and said that they thought that the work could not possibly be in better hands.

The PRESIDENT, in putting the motion, which was carried unanimously, said that with the terms in which the resolution had been proposed and seconded, no doubt everyone would agree (hear, hear).

Dr. J. STEWART proposed that Dr. Lalor, of the Richmond County Asylum, should be appointed auditor.

Dr. PAUL seconded this, and it was at once agreed to. The following gentlemen were then elected as members of the Council:—Dr. Robert Stewart, Dr. Christie, Dr. Wood, Dr. McKinsty, Dr. Willett, and Dr. Batty Tuke.

The TREASURER (Dr. Paul) made his annual statement. He said the balance looked this year better even than last. He did not suppose they would care for him going into the figures, but he had £213 10s. in hand. (Applause.) They had never had anything like that before, and, if they went on, the treasurership would be a profitable affair. They would have something to do to think what to do with it.

(For Treasurer's Balance Sheet, see opposite page.)

Dr. CHRISTIE asked if Dr. Paul was sure he had not given them credit for the unpaid subscriptions?

Dr. MAUDSLEY moved that the accounts should be adopted.

Dr. SIBBALD seconded this, and it was agreed to without comment.

The SECRETARY submitted the name of M. Dr. A. Foville for election as an honorary member, remarking that he believed in that gentleman they would have an honorary member who would do honour to them. He also read the following list of names for election as members:—

NEW MEMBERS.

Adam, James, M.D. St. And., L.R.C.S. Edin., Medical Superintendent, Metrop. Dist. Asylum, Caterham, Surrey.

Beach, Fletcher, M.R.C.S., L.R.C.P., Lond.

Bell, John H., M.D. Ed., M.R.C.S. Eng., Asst. Med. Officer, General Lunatic Hospital, Northampton.

Brown, Joseph, M.D. Edin., Asst. Physician, Royal Asylum, Morningside, Edinburgh.

- Cameron, John, M.B., C.M. Edin., Asst. Medical Officer, Crichton Royal Institution, Dumfries.
- Cassidy, David M., L.R.C.P. Edin., L.M., and L.R.C.S. Edin., Dep. Supt., State Criminal Asylum, Broadmoor, Wokingham, Berks.
- Davies, Francis P., M.B. Edin., M.R.C.S. Eng., Asst. Medical Officer, State Criminal Asylum, Broadmoor, Wokingham, Berks.
- Dickson, Dr., St. Luke's Hospital, Old-street, London.
- Dyer, Thomas B., M.D. Aberd., M.R.C.S. Eng., L.S.A., Asst. Medical Officer, County Asylum, Colney Hatch, Middlesex.
- Eager, Reginald, M.D. Lond., M.R.C.S. Eng., Medical Superintendent, St. Luke's Hospital, Old-street, London, E.C.
- Gill, H. Clifford, M.R.C.S. Eng., L.S.A., Asst. Medical Officer, N. Riding Asylum, Clifton, York.
- Holland, Joseph, F.R.C.S. Eng., L.S.A., Medical Superintendent, County Asylum, Whittingham, Preston.
- Johnson, John, M.D. Edin., Belmont Church-road, Tunbridge Wells.
- Kirkman, W. Phillips, M.D. St. And., M.R.C.S. Eng., L.S.A., Medical Supt., Kent County Asylum, Barming-heath, Maidstone.
- Levinge, Edward G., M.B. Dub., L.R.C.S. Ire., Asst. Medical Officer, Borough Lunatic Asylum, Newcastle-on-Tyne.
- Lovell, W. Day, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., 2, Cambridge Villas, Oakfield-road, Croydon, S.E.
- Mercer, Niel Gray, M.D. Edin., L.R.C.S. Edin., Resident Medical Supt., E. Riding County Asylum, Beverley.
- Millson, George, L.R.C.P. Lond., M.R.C.S. Eng., Medical Superintendent, Asylum for Imbeciles, Hampstead, N.
- Munro, Archibald C, M.B. (with honours) Edin., Asst. Medical Officer, Crichton Royal Institution, Dumfries.
- Pater, W. Thompson, M.B.C.S. Eng., L.S.A. Medical Superintendent, County Lunatic Asylum, Stafford.
- Perkins, Whitfield, M.R.C.S. Eng., L.S.A., Asst. Medical Officer, City of London Lunatic Asylum, Stone, Dartford, Kent.
- Petit, Joseph, L.R.L.C. Ire., L.R.C.S.I., Richmond District Hospital for the Insane, Dublin.
- Williams, William, M.B. Lond., Asst. Medical Officer, County Asylum, Hanwell, Middlesex.
- Winslow, Lyttleton S., M.B. Camb., M.R.C.P., Lond., D.C.L. Oxon, 23, Cavendish-square, London, W.
- Wright, John Fred., M.R.C.S. Eng., L.S.A., Asst. Medical Officer, County Asylum, Hanwell, Middlesex.
- Younger, E. G., M.R.C.S. Eng., Asst. Medical Officer, Metrop. District Asylum, Caterham, Surrey.

The whole list was unanimously agreed to, and M. Foville was elected an honorary member.

Dr. HARRINGTON TUKE said that, as one of the referees appointed by Dr. Guy, he had to report that only one essay was sent in, and, though it had admitted merits, it hardly fulfilled the conditions of the giver of the prize. Dr. Guy still offered the prize, supposing there was an essay which came up to what he wished, and proposed to renew the offer. He (Dr Tuke) therefore wished to have it on the record.

The PRESIDENT said the matter was left to the option of the judges; there was only one essay, which did not appear to reach the requirements, therefore he supposed the prize was withheld.

Dr. HARRINGTON TUKE said that was so, but the prize would be offered again for next year.

Dr. BATTY TUKE who had the following motion on the agenda—"That this Association shall, at intervals of not less than three years, grant a sum of £30 as a prize for an Essay on a subject connected with insanity, the subject to be fixed by the Council, who shall appoint a Committee to adjudge the prize (two members not connected with the specialty), Assistant Medical Officers alone being competent to compete"—rose and said that he felt that an apology was due to the Association, in reference to this motion, which was due to a concatenation of circumstances over which he had no control. The best way to make amends was to make his remarks as short as possible. Last year when the Secretary gave out the result of the balance sheet, it appeared to him that the Society was in such a good financial

position, that they could do something to the end he proposed. The report this year confirmed him in that opinion. He believed, and he thought a large number of the members believed, that they had no particular object in accumulating large sums of money, and that they could not make a better use of their surplus than by laying aside year by year a sum with which they could give a fair prize. At the time it was first proposed he thought thirty pounds, at intervals of not less than three years; but as to the actual proposition, he should have left that to the opinion of the Council to decide the proper way of carrying it out. When he was endeavouring to arrange it, however, he received a communication through Dr. Daniel Hack Tuke, which he thought might greatly modify the action of the meeting as to his proposition; he should therefore ask them to hear Dr. D. Hack Tuke, on the subject of the letter he had received.

Dr. D. HACK TUKE said he would first make a brief statement which might possibly affect the consideration of the subject. It was in contemplation, some time before this proposition was brought forward, by some of the descendants of the founder of the Yorkshire Retreat,—William Tuke, and his grandson (Samuel Tuke), whose "Description" of the Retreat brought it into notice, and was of some importance in bringing forward the treatment of the insane—to found a prize which should be given to the best essay on some subject connected with insanity, and when he saw the proposal on the agenda, it occurred to him that the two ideas might be united. He communicated with Dr. Batty Tuke, and it was agreed that he (the speaker) should make a proposal to this meeting. It was "That the descendants of the founder of the York Retreat, from their filial and grand filial love to his memory, and that of his grandson, and with the still greater object of advancing the cause they had at heart, do offer this Association, as being the best medium for their purpose, two prizes of fifty guineas each" (loud applause). They were given for that purpose, but whether biennially or triennially would be left to the judgment of the Association. The only condition would be that they should be thrown open to anyone who wished to compete for them. He should leave it to the Council, if the offer was accepted, and they would probably appoint a committee to carry it out. It struck him that apart from that proposal they were hardly in a position to carry out that of Dr. Batty Tuke, seeing that they had a rule (No. 18) providing for their surplus funds being devoted to the purposes of the Journal. It seemed to him that that rule was in force, and they were hardly in a position to adopt Dr. Batty Tuke's proposal, without altering the rule. He had not the slightest personal feeling on the subject, however, and they would quite satisfy him if they adopted both propositions, or only his (hear, hear).

Dr. HARRINGTON TUKE said he thought under the circumstances, and considering the technical difficulty of carrying out his proposal, it would be better to withdraw it, and especially so with such a munificent offer as they had before them.

Dr. WOOD did not know if that was the time to make a suggestion, but he thought it would be likely to elicit better work if the two prizes were made into one. £100 was, perhaps, hardly enough to induce a leading man to undertake such a work; but still it should be something pre-eminent, and it struck him that if it was made into two prizes of £50 no two persons would be found to compete who would make it so.

The PRESIDENT said it was a voluntary gift, and they could hardly dictate to the givers.

Dr. WOOD said it was so, but it was left to them.

Dr. HARRINGTON TUKE moved that the very munificent offer of the Yorkshire Tuke family be accepted by the Society with cordial thanks, and that Dr. Daniel H. Tuke be requested to name a committee to carry out their wishes, and to assure them that everything should be done to make it bring forth some good work.

Dr. D. TUKE found from a remark that had been made to him that the offer was not quite understood. It was to give two sums of fifty guineas each, and that the Council should have the management of it, and appoint the subject and everything else. He did not think it could be left in better hands.

The PRESIDENT understood that it was to be left to the Council in every way, except that it was to be open to all.

Dr. MAUDSLEY asked if it was a condition that it should be divided into two prizes of fifty guineas?

Dr. D. TUKE said certainly not.

Dr. MAUDSLEY asked whether, if it seemed desirable, it would be open to them to make the first prize larger and the second smaller?

Dr. D. TUKE said it would be perfectly so, but it was hoped the prize would not be less than £50.

The PRESIDENT asked if it was to be on the same terms as Dr. Batty Tuke's proposal?

Dr. MAUDSLEY objected to its being so on several grounds.

The PRESIDENT said then it was to be open to anyone.

Dr. MAUDSLEY said was it to be open to man or woman—any country or any sex?

Dr. D. TUKE said it was, and that it was left entirely to the Council to do as they liked with regard to the arrangement. He had no feeling on the matter.

Dr. CHRISTIE understood that Dr. Hack Tuke offered, on behalf of his family, the prize, and left it to the Society to decide upon the details, and that it had been moved that the gift be received with thanks. He would second that, but if they had to wait for the Council they must wait until next year, and he thought it would be better to appoint a committee at once.

The PRESIDENT then put it to the meeting—that the munificent offer of the Yorkshire Tuke family to institute a prize should be accepted with cordial thanks, and this having been agreed to amid general applause,

Dr. CHRISTIE moved that a committee of five be appointed to settle the whole matter, together with the best means of carrying it out,—whether in two sums and what the subject should be, and to communicate with Dr. D. H. Tuke.

Dr. BLANDFORD begged to second that.

This having been put and carried unanimously,

The PRESIDENT said he thought the naming of the Committee might be very well deferred until the afternoon meeting, which would give Dr. Christie an opportunity of considering who the members should be.

Dr. BATTY TUKE laid before the meeting a scheme for the full performance of a *post mortem* examination of a subject who has died of a nervous disease; with directions for the microscopic examination of nervous tissue. He said he only had to suggest that considerable modifications might be advisable, and that it should be left to a small committee.

The PRESIDENT asked Dr. Batty Tuke if he wished to name his committee at once?

Dr. B. TUKE said he should prefer to wait, and the morning meeting then terminated.

AFTERNOON MEETING.

The PRESIDENT took the chair about a quarter past three.

Dr. CHRISTIE said he had to submit the names of the gentlemen to form his committee.

The PRESIDENT read the list, which contained the names of Drs. Bucknill, Maudsley, Mitchell, Hack Tuke, and the President. Dr. Rhys Williams to act as secretary.

These having been agreed to,

The PRESIDENT read his address, which he will found on page 327. At the conclusion,

Dr. MAUDSLEY said he did not rise for the purpose of criticism, but simply to propose a vote of thanks to their President for the very excellent, practical, and comprehensive address.

Dr. WOOD had great pleasure in seconding the motion, which was carried amid applause.

The PRESIDENT said he was very grateful for the vote of thanks, but he hoped the subjects would be taken up in order and fully discussed.

Dr. HENRY STEWART said he thought the paper or lecture or work, which they had just heard, was one of great importance. It struck him that it would be a very great presumption to attempt to discuss such a paper without reading and reflection, and that it would be a very good plan if the address of the President of the year was discussed the next year, because then they would be acquainted with the subject; and there was such a variety of subjects in the present one that, he thought, it would be a very presumptuous man who would even try to select one portion of it. He, from his earliest youth, was addicted to metaphysical reading and writing, and he thought it very hard that men who had anything to do with the insane should not be prepared to deal with the metaphysical and physical aspect of any question. After a good many years of practice and official experience, the more he considered what lunacy was, the more difficult he found it to pronounce his opinion about it and the treatment of the insane. He merely wished to say that there were a great many

subjects in the paper which he proposed and intended to give a good deal of time and consideration to, and at the next yearly meeting in London they might be better able to give their opinions than they were that day.

Dr. WICKHAM said he so far differed from Dr. Stewart about waiting a year, especially on the subject of restraint and seclusion, that, while he did not think there was a member who had not made up his mind about the facts of it, he thought it would be prudish to wait for another year. He thought the free ventilation of the matter would be of the greatest benefit to themselves, the profession generally, and the world at large. He thought the President had alluded a little to him in the address in using the word "reaction." He used it in his report, but did not mean it to apply to seclusion, but to the feeling which medical superintendents had for a long time held with regard to the use of it. He held that there had been for the last twenty years a very false feeling that it was an immoral, instead of a moral, form of treatment of the insane, and they began to look at it from a more material point of view than had been the case for many years. He did not think they could apply any general rule to asylums. His own practice depended on the patients, and not on any rule. He had one who had been secluded for the last eighteen months, and he intended that she should be, as long as she was in the asylum and lived. He applied to the Commissioners to know what was their definition of seclusion, and found that it was "compulsory seclusion during the day." He adopted that, and he did it in this way: he had her in a room by herself, with the window down. She knitted and worked and sewed, and if she went out had an airing court to herself, but she was secluded from all the rest during the day. There was nothing to demoralise the asylum in such treatment, or it would be a very different thing, and she was happier under it. She had committed two or three murderous assaults and killed a nurse—he meant practically, for the nurse died soon after she was assaulted; so that she was morally a criminal lunatic, but not in the eye of the law; and he held that no medical superintendent would be justified in associating her with the rest of the lunatics. He did not think any man could lay down a rule for the use of seclusion, and still less for that of restraint. It was a question of necessity, and must be decided in each case on its own merits. The practice which had long obtained of lumping cases together for the purpose of treatment, had been most prejudicial to advancement in the treatment of the insane, and he thought the sooner they put a stop to that the better for the superintendents and the world at large.

The PRESIDENT said he was not alluding to any member in the remarks on "reaction," but to the general tone and feeling; and what he said in reference to seclusion was with a view to taking the opinion of the Association on the use of the word, so that they might know what they were doing. What was seclusion? how did they know when they were using it? He was sure that the definition by one man and that of another were as far apart as it was possible to be, and those who most carefully registered every instance were those who had the largest bill against them. In reality seclusion was not more used in his own asylum than it was when he first knew it, but every case was entered, and therefore it appeared that there was a great deal more; and he thought they ought to know what they were doing, and if they could arrive at some definition of the term they could do so. It was with that view he wished to direct the attention of the Association to it, to see whether it would be possible for them to join in accepting something as a better definition.

Dr. YELLOWLEES said the feeling was that if they began to talk about seclusion and restraint, they would not get any other paper or any dinner. They all had opinions on the subject, and the President had given them much information. He heartily agreed with a great deal that was said in the address, and he distinctly disagreed with some of the other things, but he thought the general feeling was that if they began to do any justice to the address, they would have either no discussion or no dinner, and it was too good a subject to begin to discuss without finishing it. That, he thought, was the reason that the members were all so quiet when their President had given them so much to think about.

Dr. T. O. WOOD said Dr. Wickham had alluded to the modern aspect of seclusion. He (Dr. Wood) quite agreed with the President that no restraint or seclusion should be used except by the Medical Superintendent, or by his direction, and under his inspection. No attendant should ever be allowed to lock up a patient.

Dr. CHRISTIE said it appeared to him that the discussion of the paper was far more important than even listening to a second paper would be, where they met but

once a year, and it would be his advice to go through with the discussion of a good paper like this. There were a great number of points in it which they could not decide except by a good discussion, and therefore he hoped that the Society would at once discuss it, if it was to be done at all.

Dr. HENRY STEWART just rose to ask, as a matter of opinion, whether the definition of seclusion which Dr. Wickham had said he obtained from the Commissioners, was the same which had been received by several other members who had applied to the same source. He thought it struck to the root of the whole matter. He believed several members of the Association had obtained definitions from the Commissioners, and if he was not mistaken those definitions had not always agreed.

Dr. W. WOOD said there was one view of the case given by Mr. Wickham which he thought ought not to be allowed to pass without remark. He had given them the history of a case which he classed with criminal lunatics, in which he considered it necessary to place a patient in constant isolation day and night, he (Dr. Wood) thought for eighteen months, and proposed, if need be, to continue it for an indefinite longer period. He (Dr. Wood) looked on it as a very grave matter, and one which they should hardly allow to pass without expressing their opinion. Isolation was looked on, even among the criminal classes, as the severest form of punishment, and people were led to believe that it had a most deteriorating effect on the mind. Even supposing the patient to be a criminal, supposing that she had added to her other offences murder—and if so, he did not understand that she had been taken before any court, though those in asylums were taken before the court in such cases—even assuming that it was so, the treatment was not recognised even for criminal lunatics. He was so afraid that the case should go forth as treatment sanctioned by the Association, that he was justified in asking the members if this treatment was sanctioned by them as the sort of treatment fit for even the worst criminal lunatics.

Dr. BATTY TUKE thought one of the objects of the Association should be to get a definition of isolation and seclusion by the Commissioners. There was very little doubt it was one of the most important things they could do; though it was easy to see the propriety of getting this definition, he appreciated the difficulty of it. If the members thought it advisable to get it by a committee of the Association, it might be as well if the President proposed it; or would it be better to obtain the collective opinion of the meeting? It struck him it was one of the chief things in the address, and one which, if it could be settled, was of great importance to get done.

THE PRESIDENT said it quite met his views that a small committee should be appointed to have an interview with the Commissioners, and arrive at a definition if possible.

Dr. J. A. CAMPBELL asked if it was probable that they or anyone else would give them a definition which could not be broken through or avoided if anyone chose to attempt it?

THE PRESIDENT said his view was only with reference to separate treatment. He maintained that the separate treatment was not repressive or anything of the sort. It was only the same treatment which they would adopt to a child, and he wanted them to accept the definition; and if those words were used by the Association with that understanding he would feel inclined, as President of the Association, to urge the Commissioners to adopt the principle that it was separation when it was for the good of the patient himself, and that it was seclusion when it was for the benefit of the other patients.

Dr. SIBBALD thought it would be a very great advantage if the ideas of the members generally could be elicited as to what ought to be the definition of seclusion. Everyone, both Commissioners and superintendents, had some hesitation and difficulty in defining what was seclusion. That meeting afforded just such an opportunity as they did not often have of obtaining a definition, or at least laying a foundation for one. He did not think that seclusion ought to be looked upon as a thing necessarily to be avoided. The great thing was to ascertain what they all meant by seclusion. Let each one do what he thought best; he might not do right, but at least, if he said he did not seclude a patient, let them know that he did not use what another man would call seclusion.

Dr. MAUDSLEY said there was one point which had struck him in regard to that definition which Dr. Wickham had obtained. It was "compulsory isolation during the day-time." Would that apply to a person who was kept in a sitting-room which was locked, but in which a nurse was present? [Dr. Wickham said it would not.]

Another point with which he had been very much impressed was in the observations of Dr. Wood with regard to the case mentioned by Dr. Wickham. It did seem a rather harsh measure to detain a person in seclusion during the whole of her lifetime, and it would go on as long as Dr. Wickham and the patient lived if he was at the head of the asylum. He (Dr. Maudsley) should have said a few months ago that it was very improper, but since then he had spent some three days with his friend Dr. Orange, of Broadmoor, and he was not so fully prepared to say that it was such very improper treatment. It was a very important question, and he would be glad to elicit the opinion of the members who were present, and many of whom were so well able to elucidate the point, especially Dr. Orange. From the tenour of the President's observations, and the expressions which had escaped him, he appeared to consider mechanical restraint justifiable in some cases, and Dr. Wickham went a little further and said that it was useful in many cases. It was a most important question—whether the Association was to turn its back on the system which had been growing up for years. [The President, interrupting, said he did not say what Dr. Maudsley thought he did.] Dr. Wickham, at all events, had the courage of his opinions. It seemed to him that there was a reaction, and before it gathered strength and had any result they ought to make up their minds as to restraint. Was it not true that their largest asylums were conducted, and had been so for the last twenty years, without it, and better conducted, he ought to add, than in any other period, or than they were in any other country; and were they then prepared to say that it was necessary to go back on their steps and have recourse to it again? He was not prepared to say that it might not be useful and advantageous to patients now and then—perhaps one in a hundred—but even supposing it was so, was it advisable to get rid of a good principle for the sake of one or two cases, and to allow a bad principle—the use of mechanical restraint? There was no doubt that the number of cases in which mechanical restraint was used would be dependent on what he might call the “temper” of the superintendent—that was, the habit of his mind. One would find it necessary in a great many cases and others in none at all. That would be the inevitable result of the system if it was once introduced; and then, he should like to ask, what those gentlemen who support it think of the habits it produces, which were a strong argument, to his mind, against it, apart from the brutality of the thing, and the demoralising effect on him who inflicted it. What was the result on the habits of the patient? Was it a fact that it produces wet and dirty habits? How could a patient with gloves or under other mechanical restraint help himself? He was open to become dirty and degenerate, not only physically, but mentally from the degradation of his self-respect. So much did those things impress him (Dr. Maudsley), and so much did he fear mechanical restraint being introduced again, that he hoped the matter would have very serious consideration. Certainly, if it was done, it should be with a full knowledge of what they were doing, and after the full exposition of the arguments of those in favour of it.

Dr. CHRISTIE agreed with Dr. Maudsley that restraint produced dirty habits in the patients.

Dr. WOOD said he thoroughly agreed with Dr. Maudsley on the subject in the main, and he had an illustration which perhaps bore out what had been said as to the dirty habits of the patient, as strongly as anything could do. Some thirty years ago, when he went to take charge of a large institution, he might say they had the pick of the worst cases in the country. They had criminal lunatics, and as county asylums were not so general as they have since become, had the pick of the worst cases in England. He went there with very little knowledge on the subject, and he might say that he imbibed the notions of those in office, and although he would speak of them with the greatest respect, and especially his most revered friend Dr. Munro, he had the notions which had prevailed amongst psychologists generally, from generation to generation, and he (the speaker) adopted their views almost implicitly. As a young man he came to believe, however, that restraint was not really necessary, and although there were instances in which it could not be dispensed with without great disadvantage, still in the main the principle seemed to be right. With the cost of some trouble the great principle was maintained, and there was no restraint during the latter part of his residence there. He then took charge of a large private asylum, and amongst other patients, he found a gentleman who was constantly wearing a belt and gloves. He (Dr. Wood) was told that it was essential, and that it was unsafe, and was warned not to attempt, to dispense with the things. He (Dr. Wood), however, said he did not think he could find worse cases than he had had to deal with in the criminals, where there had been some of

the most vicious, abandoned, and vilest, with all the cunning of insanity added. He determined to give up the system of restraint, and from the time he took charge of the house, he thought he might say that no instance occurred during the twenty years in which mechanical restraint was employed. He might forget some isolated case, but he believed that in no case was it employed. The gentleman to whom he had referred was still under his care, but unhappily, the consequences of which Dr. Maudsley had told them remained. He had contracted dirty habits under restraint, and in spite of everything they still remained, and he believed always would. Although there were cases in which some serious risk was incurred by them not availing themselves of mechanical restraint, they could do without it, and it was desirable that they should. With regard to seclusion he was inclined to accept the definition of the Commissioners. It was one which could not well be misunderstood—it was a patient “locked up by himself in the day time.” That seemed to him about as precise an explanation of seclusion as could be arrived at. If an attendant was present it ceased to be so. In fact a patient was secluded if he was locked-up in an asylum; but if the Association came to understand it in the way which the Commissioners said—forcible isolation against his will—they could all accept it, and it would be very convenient. If we came to the real meaning, everyone in the asylum was secluded, but the seclusion they meant, and which had to be recorded, was that of locking the patient up in a room during the day time. There was one point in which he could not go along with Dr. Maudsley—about the continued isolation. Although he had not had the advantage Dr. Maudsley had in being a few days with Dr. Orange, he still thought—from the experience he had had with the same class—perhaps with the same individuals—the treatment excessive. He was anxious to impress that on the meeting. It was a system that they could not approve, and was meant to be the most severe punishment which could be inflicted on the vilest of the human race, and in the case of insane persons was truly inapplicable and wrong.

Dr. BLANDFORD wished to make one or two observations. The first was that he thought it was impossible for them to pronounce authoritatively on cases they had not seen. They could not say what would be proper or improper treatment. In an ordinary surgical case they could not say, without seeing it, whether such or such treatment was proper, or not, and he would extend that observation to restraint. He was perfectly certain that there was not going to be any retrograde movement or any reaction; that they were not, in fact, going back to the use, or rather abuse, of restraint. He did not think they could lay it down as an absolute rule that in no case was restraint to be used. Dr. Maudsley had told them that he thought there might be cases in which it was for the advantage of the patient to use restraint, and he (Dr. Blandford) thought it was their office to do that which was best, irrespective of what might be said about them or the principle they wanted to uphold (applause). He thought the same thing might be said of seclusion as of restraint, and whether they called it seclusion or separation did not matter. He would like to say with regard to their President's remarks upon the voluntary admission of patients to asylums, or into an asylum especially for them, that he thought it would be a long time before they got such an institution. He thought it was a great pity that the system, which, if he was rightly informed, was in force in Scotland, but was not extended to England, namely, that any person might voluntarily place himself in an asylum under any restraint they liked, was not adopted. He had frequently had cases in which it would be very advantageous to patients if they had the power, but they could not find persons to send them—the fact of them having the sense to know that they wanted to go there made other people believe that it was not right to send them. This subject had been commented on in that room before; and he thought it would be very beneficial to have it in this country to enable people to go into an asylum. They might, if they had been there before, and he did not see why those who had not been should be cut off from that which was pleasant to them and of advantage to others.

Dr. H. STEWART recollected one case in which a medical man, who voluntarily went into an asylum, that he could leave if he pleased, and complained constantly of having some dirt in his food, and another young man who went to him and asked if he could have a certificate to go into an asylum. He (Dr. Stewart) told him no, as he thought it was the worst place for him. The young man went to another

doctor and got a certificate, and when he (Dr. Stewart) asked the doctor why he gave it him, the doctor said, "Because he asked me for it. He must be a lunatic if he wants to go into a lunatic asylum." He recollected another case (though he thought the most important thing for them was whether a man would voluntarily go into an asylum) of a young man very much addicted to gambling and drinking, who used to write to the medical officer and say that he should come to him on such a day, as he was not able to manage himself. This he would frequently do.

The PRESIDENT said he was rather disappointed, he must confess, at the direction the discussion had taken. Of course if they entered into a discussion as to the benefits or errors of seclusion they would never finish; but his object was to obtain a definition of it. At present the official view seemed to be, that seclusion was bad, that separate treatment was seclusion, and that therefore separate treatment was bad. He thought he had been misunderstood on both sides—by Dr. Wickham, who thought he was admitting the re-action in favour of restraint, and by Dr. Maudsley, who thought he was recommending it. He was not an advocate of restraint, and had never employed it except in surgical cases, but he should use it if he considered it necessary. He had however seen the evil results of its improper application on patients before they had been brought to him, and had heard patients express themselves as feeling degraded by its application. But what he wished to hear discussed, was whether subsidiary forms of treatment, such as the "wet sheet," &c., should be considered as restraint. With reference to Dr. Blandford's remarks, he was aware that the system was adopted in Scotland and with great advantage; but as an asylum at Virginia Water was being built by an individual to whom some of their members were known, it occurred to him that that individual might get a special charter to that asylum for the purpose he (the President) had indicated. That was all he had to say on the subject, and he would call on Dr. Batty Tuke for his paper, entitled "Remarks on a case of Syphilitic Insanity."

Dr. BATTY TUKE said his paper was about the pathological view of the case, and would occupy a long time. It would be better to pass it by, and take the paper of Dr. Daniel Hack Tuke.

Dr. DANIEL HACK TUKE then read his paper on "The Hermit of Red Coat's Green," which will be found on page 361, *et seq.* of the Proceedings.

The PRESIDENT said they were very much obliged to Dr. D. H. Tuke for his very interesting paper and description. He thought Dr. Tuke had exhausted the subject himself, but if any member had any remark to make they would be glad to hear him.

Dr. D. H. TUKE said there was the question with regard to the probability of the use of the ointment to the scalp.

The PRESIDENT said, and also as to the weak indulgence of the parents. He thought, next to intemperance, that was a most fertile cause of insanity.

Dr. BLANDFORD asked how he got his food?

Dr. TUKE said that the tradesmen took it to him.

Dr. MAUDSLEY asked on what he lived?

Dr. TUKE replied that he lived on bread and cheese, red herrings, milk and gin.

Dr. BLANDFORD asked if he paid ready money?

Dr. TUKE said he did.

Dr. STEWART asked how he was as to his body?

Dr. TUKE said he was in a very good case.

Dr. BLANDFORD asked if he was found dead, or if anyone attended him in his last illness?

Dr. H. TUKE said that on going as usual to the door, a man who acted as sentinel outside the house, heard no sounds within, and, on breaking in, found him insensible. He died of apoplexy in about 24 hours.

Dr. WARWICK asked as to the will, which Dr. Tuke said had not been proved. It was drawn up by the man himself.

Dr. WARWICK asked if it was likely to be proved? but that Dr. Tuke could not tell.

Dr. WILLIAMS said that about three years ago he visited the Hermit, his chief idea being to find out, if possible, if he was insane. He (Dr. Williams) left with the idea that though he was extremely eccentric and morally insane, he could not see that he was intellectually so, and on that ground could not have signed a certificate.

Dr. BLANDFORD asked if he read.

Dr. D. TUKE said he did. He had a great objection to modern politics, and looked on John Bright as the personification of evil.

Dr. WILLIAMS remarked that the Hermit tested his visitor's knowledge of the classics.

Dr. WARWICK said there was for a few years in Stafford Hole a man who was something the same, but with the difference that he used to have a rattle-trap concern, and went out and made all sorts of bargains. There was, however, no question that he was insane.

Dr. TUKE said he should like an expression of opinion as to whether it would have been well to place him under restraint.

Dr. D. TUKE said there was a distinct delusion in this case.

The PRESIDENT said he should think he was insane, although the legal mind would not accept the fact.

Dr. BLANDFORD thought if anyone had lived with him and seen him hour by hour they could have discovered it. He should think the Hermit had delusions, but was too much on the alert to allow them to be discovered by persons who saw him only for a short time.

Dr. YELLOWLEES moved a vote of thanks to the President and Fellows of the Royal College of Physicians for the use of their Hall.

Dr. D. HACK TUKE seconded, and the motion having been carried unanimously, the meeting terminated.

Correspondence.

To the Editor of the "Journal of Mental Science."

SIR,—Dr. Carpenter, referring to my review of his recent work, has called my attention to the priority which I claim for the authorship of the "Emotional Theory of Insanity," which he considers due to himself, and he has requested me to give a corrected statement in the next number of your journal. Although I cannot see that I have anything to correct, I shall gladly give a more ample statement, and endeavour to do full justice to the views which Dr. Carpenter has himself published on this question in his "Human Physiology," fourth edition, 1853. My articles on "The Law and Theory of Insanity" were published in the "Medical Chirurgical Review," for October, 1853, and January, 1854. So far as Dr. Carpenter's views, stated in his "Human Physiology," agree with mine, I freely acknowledge his priority.

But on reading Dr. Carpenter's pages, I think that it will be found that this agreement by no means extends to the Emotional Theory of Insanity as I have propounded it, and that his priority on other points was shared by far older writers. The passages which I find referring directly to this question are contained in sections 832 and 833 of the fourth edition referred to, and are as follows:—

"There may, however, be no primary disorder of the intellectual faculties, and the insanity may essentially consist in a tendency to disordered emotional excitement, which affects the course of thought, and consequently of action, without disordering the reasoning processes in any other way than by supplying wrong materials to them. Now the emotional disturbance may be either *general* or *special*; that is, there may be a derangement of feeling upon almost every subject, matters previously indifferent becoming invested with strong pleasurable or painful interest, things which were previously repulsive being greedily sought, and those which were previously the most attractive being in like manner repelled; or, on the other hand, there may be a peculiar intensification of some one class of feelings or impulses, which thus acquire a settled domination over the whole character, and cause every idea with which they connect themselves to be presented to the mind under an erroneous aspect. The first of these forms, now generally termed *Moral Insanity*, may, and frequently *does*, exist without any disorder of the intellectual powers, or any delusion whatever; it being, as we shall presently see, a result of the generality of the affection of the emotional tendencies that no one of them maintains any

constant hold upon the mind, one excitement being, as it were, driven out by another."

"The more limited and settled disorder of any one portion of the emotional nature, however, gives an entirely different aspect to the character, and produces an altogether dissimilar effect upon the conduct. It is the essential feature of this state, that some one particular tendency acquires a dominance over the rest; and this may happen, it would seem, either from an extraordinary exaggeration of the tendency, whereby it comes to overmaster even a strongly-exercised volitional control, or, on the other hand, from a primary weakening of the volitional control, which leaves the predominant bias of the individual free to exercise itself. Again, the exaggerated tendency may operate (like an ordinary emotion) either in directly prompting to some kind of action, which is the expression of it, or in modifying the course of thought by habitually presenting erroneous notions upon the subjects to which the disordered feeling relates, as the basis of intellectual operations. The first of these forms of monomania is that which is known as *impulsive insanity*, and the recognition of its existence is of peculiar importance in a juridical point of view."

"Now, although the existence of any morbidly-exaggerated impulse, leading to the commission of acts which must be regarded as truly insane, may be fairly considered as constituting *Monomania*, yet that term is usually restricted to those forms of insanity in which there are positive *delusions* or *hallucinations*; that is to say, fixed beliefs which are palpably inconsistent with reality. These delusions are not attributable to perversions of the reasoning process, but arise out of the perverted emotional state. This gives rise, in the first place, to a misinterpretation of actual occurrences in accordance with the prevalent state of the feelings; but, when the disorder has lasted some time, ideas which the imagination at first presents under a very transient aspect, are habitually dwelt upon in consequence of the interest with which they are invested, and at last become realities to the consciousness of the individual, simply because he has not brought them to the test of actual experience. When the mind has once yielded itself up to the dominance of these erroneous ideas they can seldom be dispelled by any process of reasoning, for it results from the very nature of the previous habits of thought that the reasoning powers are weakened, and that the volitional control, through want of exercise, can no longer be exerted; and consequently, although a vigorous determination to get rid of the ideas which are felt to be erroneous, and to keep down the emotional tendency whose exaggeration is the essence of the disorder—in other words, a strong effort of self-control—may be effective in an early stage of this condition; yet when the wrong habits of thought have become settled, little can usually be done by way of direct attack upon them, and the most efficacious treatment consists in the encouragement of the general habit of self-control, and in the withdrawal of the mind, so far as may be possible, from the morbid state of action, by presenting to it other sources of interesting occupation."

I have shown in my second article, above referred to, that Moral Insanity and Impulsive Insanity were years before fully described by Pritchard.

"The late Dr. Pritchard perceived that these narrow definitions [of the English Law] did not square with the undoubted facts of experience; that many insane persons had no delusions; that they reasoned well upon right premises, and that in them the essence of the thing was *perverted emotion*: hence he established the existence of moral insanity."

In the same article I also mentioned that Arnold, of Leicester, had named and classified Impulsive Insanity, in 1782, and that even before him it was admirably delineated by the elder Munro. How far the early recognition of these emotional forms of certain cases of insanity are from my theory that *all insanity is in the first place emotional, and that disordered emotion is a necessary element in all cases of insanity*, with the exception of cases of mere weakness of mind, anyone who will take the trouble to read my articles above referred to will

at once perceive. I shall venture to make some very brief quotations, just sufficient as it seems to indicate my position.

"Excessive emotions overgrowing and dominating the mind cannot correctly be said to *cause* insanity, as sudden fright or grief will cause an attack of mania; properly speaking they *constitute* the disease."

"All medical men of experience now acknowledge the occasional existence of mental disease, without disorder of the intellectual faculties. *The problem now claiming attention is a more advanced and extensive one: namely, whether with certain admitted and well marked exceptions, Insanity does not invariably commence with, and consist in, emotional disturbance.*"

"We believe that, except in these cases [symptomatic of physical injury], convincing arguments can be adduced to prove that *insanity is always in the first instance emotional*; that intellectual disturbance is always secondary; and that Dr. Pritchard's cases were apparently exceptional, because in them the secondary part of the disease did not occur, from the unusual force of a conservative tendency in the intellectual faculties."

"A man may be an idiot from congenital deficiency of this faculty [the intellectual], or may become demented from decay of it; he may be crotchety from its imperfection; *but it appears to us improbable that any condition of the reasoning faculty can produce madness.*"

How far I was enabled to prove these important propositions I leave it to others to say. I venture, however, distinctly to affirm that they never were enunciated before I published them, and that they are in no way contained nor inferred in the pages of Dr. Carpenter's "Human Physiology."

I am, sir,

Your obedient servant,

John Charles Bucknill.

Hillmorton Hall, Rugby, August 6th, 1874.

To the Editor of the "Journal of Mental Science."

Larbert, Stirlingshire, 1st September, 1874.

SIR,—I send two communications which have been made to me, on the subject of boys fostered by wolves.

The first is in reply to a letter sent to the Revd. Mr. Erhardt, about the two boys in the Secundra Orphanage, mentioned in my article "On Children fostered by Wild Beasts," in the last number of the "Journal of Mental Science." Mr. Erhardt states that what appeared in the papers from Mr. Seelye and others, were particulars furnished by himself. As to the question whether the boys had been turned adrift by their parents, he thinks such a thing as possible, but not likely. He says that the last boy was burnt out of a den together with wolves, and was such a complete animal, that he must have been a long time with the beasts. His taste was that of a carnivorous animal—meat and bones—nothing else. The older boy eats now vegetables, formerly he did not. He still smells at his food before eating; the other boy knew only animal food by his smell. Everything else he dropped with the greatest unconcern. The older boy looks an idiot by the formation of his head; but the other (who died after being four months in the orphanage), was the finest boy (I suppose physically) in the institution; his idiocy seemed only acquired. If he had only had time to find out his capacity, Mr. Erhardt has no doubt he might in time have improved more than the older one. The last few months the surviving boy has learned to speak several words, but he will never obtain full sense and power of speech. Mr. Erhardt does not know whether the older boy had marks upon his knees when caught, but the younger one had none; though he could not stand pro-

perly on his legs. "It looked as if they could not bear his weight, but he could run very fast on his hands and knees, so much so, that our boys could hardly come up with him when he bolted one day."

The most noteworthy statement in Mr. Erhardt's letter, is that one of the boys was burned out of a wolf's den; but he does not say on what testimony this rests.

Dr. J. Murray Mitchell has kindly sent me a sheet from the "*Lucknow Witness*," of June 19, 1874, in which there is a letter about "Wolf Boys," of which the following are extracts.

W. W. IRELAND.

"When the late Sir William Sleeman was resident at the Court of Lucknow, he interested himself much in this matter, and evidently believed that wolves did occasionally carry off children to their dens, and, contrary to their natural instincts, rear instead of devouring them. The writer of these lines whilst employed in the Oudh Frontier Police, received an order from General (then Colonel) Sleeman, to proceed from Sultanpore, Oudh, to Fyzabad, in order to secure a boy then said to have been seen in the latter place who had been nourished by a wolf. On arrival at Fyzabad no trace of the 'wolf-boy' could be found, the search having been rendered all the more difficult by the presence of immense multitudes assembled both at Fyzabad and Ajoodhyah, on the occasion of a grand Mela (fair).

"Whilst on his way back to Sultanpore, the writer heard that a 'wolf-boy' was to be found in the vicinity of Sultanpore itself; messengers were accordingly despatched to the locality indicated, and a boy was brought by them whom the villagers declared to have been reared by a wolf. The poor creature was about 13 or 14 years of age, could utter no articulated sounds, could not walk erect, in fact, crawled on all-fours, and seemed totally deprived of intelligence; presenting, although perfectly harmless, a most repulsive appearance. Now and then he gave utterance to most uncouth and almost frightful cries. He was sent to Lucknow to Colonel Sleeman, and what subsequently became of him the writer cannot tell; but when the Oudh Durbar officials discovered what they considered to be a 'shauk' (desire) of the resident, they hastened to produce several unfortunate idiots, positively declaring them to be 'wolf-boys.' There is no doubt that the natives believed in the existence of these wolf-nourished creatures, and the story of Romulus and Remus would tend to show that the Romans shared in the same belief; nevertheless, the writer must confess to total scepticism in this matter. * * *

"Is it not improbably a true solution of the mystery which, for so many years previous to the annexation of Oudh, has enveloped the history of these unfortunate creatures, to suppose that they were simply idiots who, straying away from the place of their birth, wandered, driven by hunger, from place to place in search of food; their parents or friends, themselves perhaps poverty-stricken, not being over-anxious to search for and bring back to their homes such burdens on their scanty means. It must be remembered that in the days when Oudh was under its own rulers, there existed no asylums in which to shelter idiots, and they roamed about in perfect liberty, supported by the liberality of the people.

And when we consider the great love all Orientals entertain for the marvels, we need scarcely be astonished that on seeing such an object as the one which was brought to the writer's house at Sultanpore (or still worse one possessing a savage instead of a harmless disposition), the ignorant villagers should have been tempted to believe that such an animal could only have been brought up by a wolf, that animal so much dreaded by themselves that they will scarcely pronounce its name, and to which they attach the superstitious idea that if killed in or near a village, that village will assuredly ere long be deserted.

"True it is that sometimes nature indulges in strange freaks, and supposing even that 'once upon a time' a wolf took pity on a child and nourished it, can it be supposed that such a circumstance would be of so frequent an occurrence as the villagers in Oudh would have one to believe?"

"It will most probably be found on inquiry that since the annexation of Oudh no fresh instances of the existence of 'wolf-boys' have been brought to notice, and if this is found to be a fact, it will go far to cast disbelief on the weird stories, formerly so current in Oudh, and which apparently had no other foundation than the mere assertions of ignorant villagers, assertions which under the present rule would be subjected to the strictest scrutiny before being accepted as trustworthy.

"O. P. A.

"Musoorie, the 30th May, 1874."

Obituary.

FRANCIS EDMUND ANSTIE, M.D.

Seldom have we had a sadder duty than to record the sudden and premature death of Dr. Anstie, which took place on 12th September last. He was well known as the Editor of the *Practitioner*, a journal which he established, as one of the Physicians of Westminster Hospital, and as the author of scientific treatises on *Stimulants and Narcotics*, and on *Neuralgia*, as well as for his labours in the cause of Sanitary Reform. Although he was only in the 41st year of his age, he had made himself a name in medical science and literature so great and respected as might well have sufficed to crown the labours of a long life. But high as was his professional reputation in public estimation, it could not equal the esteem which his sincere, genial, and chivalrous nature gained for him from all his friends. If he had any enemies among those who knew him, they were those whose enmity was the highest tribute to his worth, for they were the enemies of an earnest and single-minded devotion to truth and right. He was so pure from reproach, that the poisoned tooth of the slanderer could not harm him; so careless of self in his devotion to the cause which he had at heart, that the jealous eye of envy did not affect him; so fearless in encountering what he believed to be wrong, and in championing what he believed to be right, that no thought of consequences to himself or to his cause ever made his resolution halt; so enthusiastically bent upon the achievement of high moral aims, by the highest moral means, that he could never stoop to unworthy enterprises, or to ignoble warfare. He acted with such nobleness of spirit that, whatever the issue, he could not be shamed. If it was a fault to have allowed one subject to take a too passionate hold of him for the time, and not always to have given sufficient thought to the good which there was in what seemed entire evil, or if, letting feeling sway his judgment, he sometimes made a direct onslaught where more prudent counsels would have dictated a discreeter mode of attack, we may justly say that the fault was truly an exaggeration of the virtues of his character. Few reforms would be accomplished in the world if it were not for men of Dr. Anstie's type of character; and many a good cause has lost in him a champion whose generous zeal and eager energy would have been willingly given to its service. To his many friends it will be a long regret that he undertook so many labours and worked so hard as he did, for they cannot but think that if he had been more careful of his strength a valuable life would have

been spared to bring to maturity much good work. We extract from the *Lancet* the following description of his last illness and his death :—

“The schools of the Patriotic Fund at Wandsworth had been visited by a somewhat strange succession of illness, and at last some of the children were attacked by a rapidly fatal form of peritonitis. Dr. Anstie was called in to the assistance of the medical officer, and he made a careful examination both of the premises and of the patients. He was at the time suffering from overwork and want of rest, and was perhaps hardly in a state to undertake the oftentimes dangerous duty of a medico-sanitary inspection; but, after accomplishing it, he made, on Sunday, the 6th, a *post-mortem* examination of one of the children who had died from peritonitis. Whilst thus engaged the middle finger of his right hand was accidentally punctured by a needle. He sucked and washed the wound immediately, and on Tuesday mentioned the occurrence to some of his friends, but expressed a hope that no harm would result from it. On Wednesday he felt ill, and complained of pain in the right armpit. During the afternoon he was so chilly that he sat before a fire wearing an overcoat. Dining with a friend in the evening, he spoke of having poisoned his hand, and said that he had so much pain in the armpit that he feared he should have an abscess there. The pain in the arm made it impossible for him to put on or take off his great coat without assistance. He still complained of feeling cold, and appeared to be depressed in spirits. On Thursday he was confined to his bed, and Mr. Brudenell Carter found him with a dry tongue, a dry, hot skin, and complaining of distressing headache, and of much pain over the right pectoral region. During the day the symptoms increased in intensity. After a restless night the patient was still worse on Friday, and the assistance of Dr. George Johnson was obtained, who has favoured us with a narrative, which we give in his own words :—

“‘I first saw Dr. Anstie with Mr. Brudenell Carter at 3 p.m. on Friday, the 11th inst. He was then delirious and quite unable to give a history of his illness. The tongue was dry; the temperature 105 deg.; there was an erysipelatous blush about the size of the palm of the hand over the right pectoral muscle; there was excessive tenderness on pressure in the right axilla and over the front of the chest on the right side; the slightest movement of the arm elicited a cry of pain; there was no appearance of inflammation about the wound on the hand or up the arm. At half-past nine in the evening I again saw the patient, in consultation with Dr. Burdon Sanderson and Mr. Carter. His condition remained unchanged. At half-past nine on Saturday morning I again met Mr. Carter. We found the breathing was very rapid; there was a distinct friction-sound over the middle and lower lobe of the right lung, and dulness on percussion over the same space; the erysipelatous redness and the tenderness on pressure remained the same. The urine was highly albuminous, and contained numerous epithelial casts. About the middle of the day symptoms of a blood-clot at the right side of the heart came on; the features were livid; the breathing rapid and shallow; consciousness was rapidly lost, and death occurred at half-past 2 p.m.

“‘It was not thought necessary or desirable to make a *post-mortem* examination. The nature of the disease was obvious. A poison absorbed from the wound of the hand had caused diffuse cellulitis over the right side of the chest, acute pleuropneumonia, and general blood-poisoning. I may add that Dr. Sanderson entirely concurs with me in the opinion which I have here expressed as to the origin and nature of Dr. Anstie's illness.’”

Dr. Anstie was not a member of the Medico-Psychological Association, but this Journal has had the advantage of occasional contributions from his pen. Our readers will call to mind an important article by him on the *Hereditary Connection between Nervous Diseases* in the No. for January, 1872. His work on *Stimulants and Narcotics*, and his later work on *Neuralgia*, were reviewed by us at the time of their appearance.

THE NEW ACT IN RELATION TO GRANTS FOR THE MAINTENANCE OF PAUPER LUNATICS.

At a meeting of Medical Superintendents of Royal, District, and Parochial Asylums, and Medical Officers of Lunatic Wards of Workhouses of Scotland, held in the Royal College of Physicians, Edinburgh, on the 16th instant, the following Resolution was adopted, and the opinion expressed below was that of the meeting.

"That in the opinion of the following Medical Superintendents of Royal, District, and Parochial Asylums, and the Medical Officers of Lunatic Wards of Poorhouses of Scotland, the *proposed method of distributing* the grant of 4s. per week for the maintenance of each pauper lunatic resident in a Royal or District Asylum, is not compatible with the existing lunacy arrangements of Scotland, as it fails to take cognizance of a large number of lunatics who are under the supervision of the General Board of Lunacy, in accordance with the provisions of the Acts of Parliament for the regulation of lunacy in Scotland; and that its effect will be to interfere with the present modes of treatment of the insane in Scotland.

"It is our opinion that the *proposed method of giving* 4s. per week from the imperial funds for the maintenance of each lunatic in an asylum will tend to fill asylums with the chronic lunatics at present in poorhouses and boarded out."

This was afterwards signed by twelve medical superintendents of asylums and ten medical officers of workhouses in Scotland, and sent to each Scotch member of Parliament and the Chancellor of the Exchequer.

Several of the medical superintendents of asylums and medical officers of workhouses were strongly opposed to the views of the majority, and deprecated any interference in the matter at all.

Appointments.

ALLARDYCE, J., M.B., C.M., has been appointed Resident Assistant Medical Officer to the Female Department of the Durham County Asylum.

DICKSON, HAMNER, M.C., and M.B., Edin., appointed Resident Clinical Assistant to St. Luke's Hospital.

KITCHING, J., M.D., L.R.C.P., Ed., M.R.C.S.E., has been appointed Consulting and Visiting Physician to the Friends' Retreat, near York, on resigning as Medical Superintendent.

MILLSON, G., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Superintendent of the Metropolitan Asylum District Asylum for Imbeciles, Hampstead.

NEEDHAM, F., M.D., M.R.C.P., Ed., has been appointed Medical Superintendent of the Barnwood House Lunatic Asylum, Gloucester, vice Wood, resigned.

PRINGLE, H. T., M.D., has been appointed Medical Superintendent to the Glamorgan County Asylum, Bridgend, vice D. Yellowlees, M.D., appointed Physician-Superintendent of the Glasgow Royal Asylum.

TURNER, W. M., M.R.C.S.E., has been appointed Assistant Medical Officer to the Staffordshire Lunatic Asylum, Stafford.

WEBB, C. F., M.R.C.S.E., has been appointed Senior Resident Medical Officer to the Hants Lunatic Asylum, Knowle.

YELLOWLEES, D., M.D., L.R.C.S. Ed., has been appointed Resident Physician-Superintendent of the Glasgow Royal Lunatic Asylum, vice Mackintosh, resigned.

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VOL. XX.

PART 1.—ORIGINAL ARTICLES.

The Study of the Human Mind from a Physiological View.

By SAMUEL WILKS, M.D., F.R.S., Physician to Guy's Hospital.

The scientific method of studying the phenomena of the human mind by founding it on a physiological basis, and thereby tracing the cerebral functions through the lower animals and uncultivated man, according to the plans adopted in other physiological investigations, must necessarily tend to modify or even change much that is contained in our received systems of psychology. In the hands of such men as Darwin and Huxley, the comparative method, when worked out in all its truthfulness, must necessarily bear good fruit, and be unaffected by any of the bias which the purely metaphysical method of the schools is apt to give to the investigation. The objection that it is degrading to compare the human being with the lower animals, or to take mankind in the mass, is of no value to the scientific investigator, who is merely seeking after truth, and knows that no researches of his can in any way affect man's history in the past or for the present; although they may afford many explanations of human conduct.

The method by which a knowledge of the human mind and its operations was formerly sought to be gained, appeared to consist in the philosopher sitting in his study and giving himself up to contemplation (or the working of his brain), placing on paper all his reflections, analysing them or sorting them, and then skilfully arranging them in a tabulated form. The whole scheme was a result of his cogitations. It was a development of pure mind, or of his "ego," as he styled himself. The mere feeling of individuality, or consciousness, obliged him to regard himself as something anterior to, or at least independent of, his body and its surroundings; these he could contem-

plate as exterior objects from his own superior eminence as a spiritual being; which consideration carried him often still further to the necessary separate existence and immortality of this "ego," and usually by further contemplation to the necessity of a God. The scientific man does not follow this plan, and here it may be said that the word scientific in the popular sense is often meant to convey the idea of some erudite or deep theories of certain profound men, which have no more right to be credited than any other fancies or dogmas thrust upon mankind; whereas I apprehend it should be explained that we mean, by scientific, the teachings derived from the material world around us as far as our knowledge has at present extended, in contradistinction to fancies and beliefs emanating from the fears and passions of the human mind.

The scientific man, therefore, need not take the older metaphysical view of the human mind, nor need he form any theory about it whatever. He is content to take mind as he finds it, and study it in all its forms and under all circumstances. He sees the brain and the human faculties associated with it; he knows nothing of one without the other; and the problem of their union to him is not necessarily of greater difficulty than the association of other functions with their respective organs, or the ordinary properties or phenomena of matter with the subject matter itself. It is quite true that no study of the mind alone would have alighted upon cerebral substance, nor is it likely that a study of bile would have suggested a liver, or the most minute analysis of another secretion suggested a kidney. We know that certain organs have certain actions, and we say the same of the brain; and with many persons there is no more difficulty in accepting this fact than any other fact in nature. Whether the mental faculties can remain when the brain decays, is a totally different question, and is to be argued on other grounds, and to be supported by purely moral and religious arguments. Erasmus Darwin, as a scientific man, was able to say, at a time when few opposed the teaching of the schools, "In respect to consciousness we are only conscious of our own existence when we think about it, as we only perceive the lapse of time when we attend to it; when we are busied about other objects, neither the lapse of time nor the consciousness of our own existence can occupy our attention." Descartes has said, "I think, therefore I exist;" but this is not right reasoning, because thinking is a mode of existence, and it is thence only saying "I exist, therefore I exist."

It may be remarked that those who have had reason to consider the human mind as a cerebral function, have been styled materialists, and charged with having degraded the human character; but if this material hypothesis be admitted and offered to those who are antagonistic to it, in order to discover what they understand by it, they are unable to create a being of the most material kind, like man, without giving it a feeling of self-existence or consciousness, and at the same time the inevitable necessity of placing this feeling anterior to all else in his being, even to the organism from which it sprang. This necessity of regarding his own organism, including his own brain, as an object, must come out of a material as well as any other hypothesis, unless man is to be made an altogether different creature from what he really is. The objectors admit that if they were materialists and could look into a mirror and see their own naked brain at work, out of which consciousness resulted (unless consciousness resides in every part of the body, as Plato taught), that of necessity the facts to them must be reversed, and they, as conscious beings, would regard their brains objectively. It would seem, therefore, that at the present time there is no necessity for the physiologist, whilst studying the human mind, to do otherwise than look into the material world around him, and take the facts as he finds them. It would scarcely have been necessary to make this declaration, had not certain members of our profession deemed it more satisfactory to introduce a distinct and separate principle into the human mind to account for some of its attributes, such as memory.

Those who are in unison with the scientific feeling of the age, are taking a physiological basis not only for the determination of the attributes of man, but for the explanation of a large number of the customs which have grown up around him; finding therein much to elucidate the problems contained in the various systems of morals and religion, as well as discovering the only explanation probably of his taste for the fine arts and for the development of music. As regards the latter, Darwin says that hitherto his attention has not been sufficiently given to it, and implies, and no doubt rightly, that his method will be applicable for its elucidation. The musician takes the human organization as he finds it, with its aptness to be influenced in various modes by sound, but it requires a deeper insight into man's nature to discover why a quick, or so-called lively air, stimulates him to gaiety, which will even make an infant smile, whilst, on the other hand,

a slow, measured tune would produce in the latter a long face or even a sob. It may be that life, heat, and a quick circulation go along with joyousness and rapid movement, whilst cold-bloodedness and feeble circulation accord better with slow time and dulness. Moreover, that quick time and slow time, as Sir Charles Bell suggested, are in unison with and appreciated by the contraction and relaxation of the muscles, and not by the ear, hence the use of those very appropriate terms, *slow and quick movements*, and the necessity of the master *beating* time. Again, as only a given quantity of air can be taken into the lungs at once, and so much expelled, and since also the laryngeal muscles must be alternately contracting and relaxing, it is evident that much which we call cadence, metre, and rhythm may find its meaning in a true physiological cause. The mode of talking and expression may often be taken as evidence of the frame of mind, and I apprehend that a religious service may be found to correspond exactly with the creed of the worshippers. The feeling of profanity experienced by a large section of people in approaching the Creator in any but the most melancholy airs, in which the minor key prevails, has an intimate relation to fear and awe, whilst the sound called whistling would be in the highest degree irreverent. We speak also of the harsh note of anger, or the soft whisper of love, all of which outward expressions of the feelings will find explanation by the Darwinian method of research.

In studying these subjects, we find that the widest field for investigation lies in the connection of man with the lower animals. The tendency of modern thought in this direction is no doubt disquieting to those who have always regarded man's place in nature as something perfectly distinct from and superior to the material world around him, and that he is to be regarded rather as an immaterial essence than as having any connection with inferior objects; but we must submit to the logic of facts. There are others, however, who, possessed of a scientific spirit, and who are occupied with the highest working of the human mind, with all its passions, fears, and aspirations, yet are so subtly constituted, that they shrink from methods of inquiry which appear to degrade the intellectual faculties of man and confuse them with all the lower instincts of the brute, or which require us to contemplate man in the mass like any other species of animal. There are many good and clever men in our profession, who, overcome with the thought of man's individuality, of the

solitariness of each man's soul, of the mysteries and secrets therein contained, are impressed with the power, the greatness, and the infinite vastness between it and anything which we can style "mind" in the brute; and declare that in this higher mind lies the subject for our contemplation and investigation, rather than in those lower phases of instinct, which every creature may possess. It is as well, perhaps, that there are those who take this view, for then purely physiological observers may have less fear of overstepping scientific methods in their investigations.

I myself believe the scientific and comparative method of studying the human mind, as suggested by our great countryman, Locke, is the one which will give us the greatest insight into many of its more obscure phenomena, that is, the study of it from outside the individual under all conditions; in the feeble as well as the strong-minded; in the savage as well as in the sage; even also in the madman, the idiot, the child, the four-legged and winged animal. I think the results thus obtained, being the simplest and most universal, will form the basis on which the higher superstructure can be raised. If it be found that much that is in man belongs also to the lower animals, it will enable us to define more clearly what the higher attributes of man are; whereas most observers have worked on the preconceived idea that every act of man was intimately related to his consciousness, and was, indeed, an effort of the intellect, whilst the performances of animals were the result of a piece of prearranged machinery. Man had mind, but animals instinct; a mere phrase, conveying with it no meaning. The very same act, or an apparently similar one in the two beings, was attributed to different causes. Of late years, some writers have endeavoured to show that the faculties of the lower creatures are identical with those in man, and that the rudiments of all the higher attributes of the human mind may be found in them; this is set forth in a most instructive and able article in a late number of the "Quarterly Review" as regards the dog, and in a similar manner in the "Journal of Mental Science" by Dr. Lindsay. These comparisons, however, are generally made in favour of the lower animals, in order to show that to them belong rudiments of those higher faculties which the psychologist had arranged in his scheme as belonging exclusively to man. This study of the faculties of the lower creatures is fraught with great advantage, and it will indubitably show

how much there is in common between man and the animals lower in the scale.

I believe, however, this comparison will prove not so much that there is intellect or a moral sense at work in these creatures, as that their actions are reflex and due to education, and if they resemble those in man, and the term instinct be applied to the process in the lower animals, the same expression must be applied to man ; in fact, I believe that the result of a physiological or purely scientific investigation into man's nature by the method spoken of will result in the conclusion that a large part of his mental operations result from reflex or automatic processes, although the consciousness of them on the part of the individual makes it appear to him as if they formed part of a rational act, or were the effect of deliberation. I think it will be found that when animals are taught certain tricks, they perform them only on the application of the accustomed stimulus, as horses in a circus ; also that children act after the same manner, and even that adults may pass through the greater part of their existence acting as automata, never having been able to render themselves independent for a moment of the circumstances which surround them.

The great object of this paper is to draw closer attention to the fact that physiological investigation is teaching how the nerve centres can be educated to certain habits, that they are impressionable, or become modified so as to respond in a given way to particular stimuli, and in this way prove that a great many acts in the animal body are simply reflex. It is admitted by everyone that the human being can be educated, but it is popularly thought that, being rational, he is still able to act according to his will ; in animals and young children, however, it is clear that education obliges the subjects of it to act in a certain manner, and the action may occur with or without consciousness, as it makes no difference to the reflex nature of the act. It will be as well not to try and determine here, at what precise point the spinal system ends, and where the cerebrum or that part of it which is able to appropriate sensations and elaborate them into thought and act begins ; but I see no reason to regard the large central ganglia in the cranium as other than the terminal knobs of the spinal column, since their destruction does little more than paralyse the limbs and voluntary muscles of the body. I consider, therefore, that when I educate my hand to perform a movement, I am

ting a portion of the corpus striatum of the opposite side. In the true spinal system, acts are simply reflex without any mental process occurring at all, but when the impressions are carried to the cerebral hemispheres, and ideas take place, the reflex process by no means ceases, for although it may still be called a mental one, yet it is apparently carried on quite independently of the higher intellectual faculties. If due consideration be given to the subject it may be found that many of our acts are simply the result of habit, and many of them go on without thought or will being directed in any way upon them. Such actions are clearly mechanical, and result from the functions of our spinal system, without our consciousness being roused in any way, taking place probably in the central ganglia, since these bodies rule over the limbs. Thus, an instrument may be played without a thought being given to the act, or we may get up in the morning and dress ourselves, whilst the mind is otherwise engaged; and yet the process of dressing is so complex, that if we had never performed it previously, it would have occupied all our attention and a very lengthened time to have fitted all the garments together. Again, if the arm had been educated to fall at the stimulus of a certain word through the ear, then, as in the case of Huxley's soldier, the word "attention" would have obliged the veteran to drop his mutton and potatoes in the gutter. Every medical man must have observed that when a patient is requested to lie on his back, he very often immediately turns on his belly. The word suggests showing his back.

The simply automatous manner in which many animals act was well shewn by Dr. Huxley in his paper at the British Association. His view was one which I had always been inclined to hold in explanation of the actions of the lower creatures, and I had even applied his theory to man; I had even made use of his example of the Frenchman, who, after an injury to the head, performed many acts during a state of unconsciousness. In my lectures I have illustrated the Aristotelian doctrine of "*nullum in intellectu nisi in sensu*" in several ways, and shewn how ideas are excited by an external stimulus. Thus smell of a particular kind is so retentive in many persons that it will revive the memory of some former odour, and with this a whole train of ideas. An explanation of dreams given by Lord Brougham, as due to a reflex operation excited by some external stimulus affecting the body without,

is a doctrine which Shakespeare had already expounded in the lines beginning—

“ Oh, now I see Queen Mab hath been with you ;
She gallops night by night o’er courtiers’ knees that dream of courtesies
straight ;
O’er lawyer’s fingers who straight dream of fees ;
O’er ladies’ lips who straight on kisses dream.”

All these thoughts and fancies take place during sleep, but in our waking hours, because we are conscious, it by no means follows that many of our acts and words are not excited by a similar external stimulus, and responded to in the same involuntary manner. In fact, there is every reason to believe that during much of our active life consciousness is a mere coincident condition.

And herein lies the very pith of this paper, and that which the scientific method of investigation is evolving, that in lieu of the old metaphysical method in which every individual act is a consequence of consciousness and will, we have that of unconscious cerebration—a cerebral, or we might say mental process—going on without the subject having a knowledge of it. Or if he be conscious, it may be to a simple waking up to the operation proceeding in his brain. To the individual himself all is the result of thought, deliberation, and will. To the outward observer his acts are simply reflex, and often exactly similar to what we observe in the lower animals. It is, therefore, necessary to analyse all human actions before we can regard them as being based on deliberation or reason, and to endeavour to discover what are due to habit, or are simply reflex, before we can bring in a moral element and style them capriciously either virtues or vices.

The great central fact is that a child, like the lower animals, is educated or taught to act in a determinate manner, the same faculties being employed in both of them. There may be consciousness, and a certain amount of effort may be required for their performance, but the acts occur none the less systematically than if a piece of machinery were at work. In this case not only the individual or actor, but the teacher or parent is unaware of the great fact, and attributes the child’s performance to the highest intelligence, just as the owner of a dog speaks of his favourite’s cleverness.

Let us take what is called a clever dog or a pet dog. Its owner will exhaust you with an account of its superior intelligence and its wonderful performances ; but have the dog at your own house, you observe nothing remarkable in it, but

think, indeed, it is rather stupid. You don't know how to excite its nerve centres as his master does, and therefore you cannot bring him out; but, then, probably you will be informed of acts of intelligence which do not depend upon special stimulation to evolve them, as its recognition of Sunday. This illustration, however, proves too much, for it is not likely that he recognises the day independent of the outward observances of it; for he would then shew more acuteness than his master, who, when journeying amongst the mountains in a foreign country, might easily forget the day, as I have known occur more than once to travellers in Switzerland. Take the dog from his usual surroundings, and his great intelligence is by no means very evident.

The same may be said of the parrot which is taught to say certain words, and whose reflected character from a wonted stimulus is most striking. The sight of one person recalls a certain word, and the sight of another person another word; food will recall a third, and which is, perhaps, the appropriate one; but let the parrot be put amongst strangers, it is dull and stupid. So reflex, indeed, are all the parrot's sayings and doings that most of the stories relating to these birds making apposite replies are obviously false. Now, exactly in the same way, if we take a child and regard him in his household with his special surroundings, he will go through his particular performances; in the doctor's house he will play with a stethoscope, and apply it to the chest of his playfellows to the great delight of the father; in an architect's house the child will build a house with its wooden bricks, and with such a wonderful eye to sanitary arrangements that the father already sees the future greatness of his progeny. Again, instead of a child making use of the ordinary name of an object he will be heard using some more familiar terms, apparently as if he had in his simplicity coined the word; as, for example, I heard a child quite lately call its breasts "fatties," and a steam-engine "puff puff," and on observing the circumstance the mother solemnly asserted that the child had never been taught them. Such self-deception shews that the only method of studying human actions is by external observation; for if a parent can believe that a child's expressions are spontaneous when he himself has taught them, how is it possible for him to judge of the words and actions arising in himself? Many of us may gain a better insight into our inclinations by asking ourselves how we act rather than how we feel. We see the baby, the dog, and the

parrot, under their own special surroundings, go through a number of performances when the reflex acts are excited through stimulation of the nerve centres. Place these individuals under other circumstances, and they are all equally dull; so that it is notorious how other people's animals and children when thrust upon strangers are insufferable nuisances. These examples of animal life may be profitably compared under circumstances where questions of morality, of human passions, of right and wrong come in; thus if a parrot be presented with a piece of bread and jam he will eat the jam and drop the bread. This is said to be the result of instinct. The child will do exactly the same thing; he is called naughty, and beaten accordingly. The bird will drop from his perch by a sudden noise as if he were shot, so purely reflex is the movement; yet when a human being is suddenly startled he exclaims that he was frightened, and a bystander will call him timid. A man may start at his shadow, but not be a coward. Some fair and thin-skinned people suddenly blush when spoken to, but it generally implies no inward emotion. Any number of illustrations might be given of acts which are purely reflex, and yet because occurring in a conscious human being are generally associated in his mind with his intelligence or moral nature. The most important and striking of such illustrations are those which may be drawn also from the lower animals.

Simple phenomena of this kind in children must first be studied, when it will be seen how their actions depend upon their accidental surroundings; at the same time admitting that the material of different races varies, so that an individual of one race would be more ready to respond to a given stimulus than that of another, owing to the stimulus having been applied through several generations. Thus as children grow up they act after the manner in which they have been educated, showing a proneness for a special cultivation which has been applied to the race through several generations. An English boy, for example, educated in France can never be made so thoroughly French as a boy of French descent. These facts shew, undoubtedly, that man is less a free agent than he thinks he is, and it behoves us to try and discover in any human actions to what extent they have been the result or not of the circumstances in which we have lived. The strong feeling which seems inherent in our very nature is, that we are possessed of an independent individuality, and that every act of our life

issues from our own free will, and is a result of a distinct mental operation; in this feeling, which is a part of ourselves, lies the very essence of the viciousness of most of the older systems of psychology, which the scientific method must necessarily subvert. Perhaps the sheep (of which Carlyle speaks) who follows the bell-wether in jumping through a gap into the abyss below, has a similar feeling of independent action. Every savage who speaks of his acts as a result of his own free will, would probably feel hurt if he knew that he could not be distinguished from his fellows, and that we were quite content to include him in the race. In writing history of their manners and customs, we lump them together as a whole, and even in civilized countries we speak of English, French, or German characteristics. It is quite possible for a number of Englishmen to be together discussing a political question, and a Frenchman looking on to have gained only one idea from his stand-point, and which he would call English opinion. In all communities it is the rule for the majority to act exactly in the same way, indeed there are those whose great aim in life is to "do the correct thing." It is only by courtesy that these people can be called individuals at all. We all know how the rules of society bind us, and how we follow one another to the utmost minutiae. If I pass through the neighbouring square during the season, I see the preparations for the dinner-party, the invitation cards, the confectioner's cart, the florist's van, and a number of guests entering the house all dressed alike. On the following day there is the same performance next door, some of the same articles again doing duty, with the same people and the same conversation; so that if persons from another country, unused to the procedure, could gaze on these scenes, they would appear almost identical. When a man on taking a cool and deliberate survey of his life, finds himself engaged in the same performances as his neighbours, which he knows he himself never instituted, it sometimes puzzles him sorely to know to what extent he is a voluntary being. One can scarcely estimate the amount of intellect required to exactly copy one's neighbour, or measure it with that which the sheep employs when he jumps into perdition. The importance of endeavouring to distinguish acts which are merely the result of imitation and habit is very great in forming an estimate of the qualities of the human mind, and more especially the moral ones; yet this is often entirely overlooked by our moralists and preachers. It would seem sometimes

as if not only good-breeding but the highest morality consisted in following the rules of respectable society, and therefore it is that in every place the best, most lamented, and virtuous man is he who has strictly obeyed the laws of his country, rigidly followed the religion of his fathers, educated his children after the manner of his country, and regarded his fatherland as the best in the world. Thus it is that persons who have never had an idea beyond what their immediate surroundings have brought forth, are said to have led a blameless life, and have had every virtue inscribed in gold on their pretentious tombstones. On the other hand, the exceptional men of genius, those of literary and scientific aims, who have had more brain than was ready to act in a simple reflex manner, but have not conformed to all the customs of society, have been mourned over as reprobates. I have heard persons declare that had they lived in Athens, they should have been party to Socrates' death, since he meddled with the orthodoxy of the day, and so corrupted the youth. From this stand-point, Socrates was a bad man. It is quite necessary therefore to know and understand all the surroundings of an individual life before we can estimate its true character.

A medical man has probably a better opportunity of gaining an insight into character than most people; he sees much of the good and much of the bad (the latter shown mostly in selfishness), and is often amazed at finding people so exactly alike. He gains this knowledge because the patient has so excellent an opportunity of singing his own praises, in which his wife joins, or *vice-versâ*. He gives a stereotyped story as if read from a book, of which the thread is that he leads a life which is like that of a horse in a mill, or of a dog who goes through certain performances, and of this routine he boasts as if it were a highly virtuous exploit. He tells you how he rises from bed as the clock strikes, how next he shaves himself and has his breakfast, takes his one cup of coffee, his two eggs (emphasis on two), and rasher of bacon, and then how he goes to business, not forgetful of another operation before he starts, the regularity of which is so remarkable that his wife joins in the enthusiasm which the subject excites. He reads his "Times" or "Telegraph" in the train, eats his chop for luncheon, with his glass of sherry (which is always dry) and returns home to dinner. His expression of "going backwards and forwards" to town, reminds one of a polyp attached to a rock, or a mussel with a rather long

byssus. He has a month's holiday, but he does not care to go amongst strange people abroad, with their different customs, nor does he care much for dinner parties, being content with the simplest food; on Sunday he goes regularly to church, and is never seen out of the family pew; he is a man indeed of simple tastes, and having made himself out as thoroughly common-place as he has ability to do, he would wish you to regard him as a paragon of virtue. A man of this kind makes a good citizen in whatever country he dwells, and is as estimable in England just as he would be a good Mahometan in Turkey. I do not say this in any cynical spirit, for no object is gained in holding up one's fellow-creatures to ridicule, but it is absolutely essential in discussing the qualities of the human mind to ascertain what is the influence of the surroundings; it is simply absurd to call those acts either intellectual or moral which result simply from habit or imitation.

I would not offer a single word as an apology for vice, or attempt to break down the well-marked barriers between virtue and its opposite, but one feels a little indignant when a common-place teacher can address a common-place assembly and denounce Shelley and like men of genius as bad, when neither speaker nor hearer are able to appreciate their powers. How often does one see also a woman lauded for virtues when she is merely following her instincts and habits, like one of the lower animals. She is affectionate to her offspring, and receives her meed of praise from her friends, but let this devoted mother have charge of a step-child, and we see from the newspaper reports that she is capable of illtreating it as none but a fiend could do. She is firmly attached to her home, which she also regards as a great merit; but then so is her cat. She loses her husband or children, and her grief is so overwhelming that she becomes a model of affection to her sympathizing friends, whilst another woman may be regarded as more obdurate, who, having a stronger mind, does not display this savage liking for her young, and is able to moderate her grief in consideration of the higher duties which are required of her. We too often have to observe that some of the lower instincts or habits in people are regarded in the light of virtues by the benevolent, and that they are thus blinded to the higher qualities of others who can surmount victoriously the circumstances which weigh upon them. The same observations apply to the lower animals, and may be illustrated by two stories taken from the newspapers during

the last year. The one had reference to the erection of a monument in Edinburgh to the memory of "Greyfriars Bobby," a dog who had attended his master's funeral, and had been a constant mourner at his grave in Greyfriars churchyard for four years afterwards. This was regarded as a proof of the strongest affection, and was to be commemorated on a tablet as a lesson to other dogs and the human fraternity as they pass by the spot. But unless we are assured that other temptations were open to the dog and his better nature resisted them all, we cannot but think that he was following his lowest instincts, and that, after all, he was a remarkably stupid animal. Had he possessed any high faculties worthy of record, he would have changed his mode of life. Now compare him with another dog who was in an equal manner belied. The story was, that some poachers being taken up at Leamington, a dog was found with them, who, it appeared, was let out to any poacher at a shilling a night, and comments were made by the newspaper press on this unprincipled animal for having lost the great characteristic of his species, affection to a particular master, and his consequent willingness to follow any stranger. This dog is held up to reprobation; but if we disallow the immorality of poaching, he must be regarded as a higher type of dog in being able to change his mode of life, than the other one who could not leave the spot where his master was laid, and was a mere slave to habit. Habit it is which compels us to the performance of a large number of our daily acts; conventionality is what we worship in society, we give it our highest praise, and call those virtuous who walk in its paths, so that even a poor dog who could not get out of the routine has a monument raised to its honour.

On looking at these facts we find the lower animals slaves to instinct and routine; we observe the same in children, and rising until we come to the adult, we see the whole tenour of a man's life often little more than a given round of the same duties which he had learned when young. The human being, of course, is framed in a particular way, so that he may, indeed, be nine-tenths of his father over again, especially if he be submitted to the same educational operations from birth. How difficult, under these circumstances, is it for a man to take an independent course! Should he be able to rise superior to his surroundings, he must be a man of more than usual power; he it is who is the reformer, or the man who lives before his age; likely to be hated by his fellows, or

to be a martyr to his country. The popular leader would be he who is endowed with all the instincts and feelings of his countrymen, and be like the late Lord Palmerston, who was said to concentrate in himself the spirit of the age. It would be an interesting experiment to try and discover the degrees in which strong intellects could rise above the circumstances in which they might be temporarily placed, and thus see if a guage of mental power could be formed. Let a person, for example, like Tinker Sly in "The Taming of the Shrew," be taken when intoxicated, and laid in his lord's bed, and see whether he has force within him to enable him to act and speak rightly, quite independently of his surroundings.

"Sir, I will practice on this drunken man ;
 What think you, if he were conveyed to bed,
 Wrapped in sweet clothes, rings put upon his fingers,—
 A most delicious banquet by his bed,
 And brave attendants near him when he wakes ?
 Would not the beggar then forget himself ?

Huntsman—Believe me, lord, I think he cannot choose."

He probably could not choose, and, therefore, when a man has said (in my hearing) that had he been born in Turkey he would still have been a Christian, he is probably talking nonsense. The way, indeed, in which one is moulded from infancy, and afterwards receives additional shape according to the business or profession to which he belongs, is an incubus weighing upon him from which he never can get free. Froude has well expressed this in the following words:—"Now every one of the many professions has a peculiar character of its own, which, with rare exception, it inflicts on those who follow it. There is the shopkeeper type, the manufacturer type, the lawyer type, the medical type, the clerical type, the soldier's, the sailor's. The nature of man is—

" 'Like the dyer's hand,
 Subdued to what it works in.'"

And we can distinguish with ease, on the slightest intercourse, to what class a grown person belongs. It is to be seen in his look, in his words, in his tone of thought, his voice, gesture, even in his handwriting, and in everything he does. Every human employment has its especial moral characteristics, its peculiar temptations, its peculiar influences ; of a subtle and not easily analysed kind, and only to be seen in their effects."

We have hitherto spoken of the lower actions in the

human subject as due to habit, but we shall find that what are called the higher faculties of the mind are also subject to the same reflex laws. In a dog a certain sound or object suggests a certain cry or action, but what amount of actual mental process is evolved at the same time it is difficult to determine. In the human subject, a word or person may suggest in the same manner an expression of a purely reflex character, but being attended with consciousness it is regarded as an intellectual effort, excepting when the words spoken are absurd or irrelevant, when we say "You speak without thinking;" or as is witnessed in a person admittedly insane, who will catch up one word after another, and play with them; or, as is seen often in ourselves when in a thoughtless humour and not caring to exercise the brain in conversation, we are content to "pun" upon words. The deeper the intellectual process, probably the less this is done, and the less power do words have over us. In ordinary conversation, however, in mixed society it is interesting to observe how much that is said is of a reflex character, and excited merely by peculiar expressions. One example of the kind will suffice. A gentleman seeking the appointment of medical officer to an Insurance Office required the patronage of the directors; the way, therefore, in which his friends could assist him would be by influencing these gentlemen. He mentions his candidature to the members of a family with whom he is acquainted, and who happen to have a friend Mr. C., a clerk in an Insurance office; three different members of the family suggest that Mr. C. could help him. Now there was not the slightest reason for them to suppose that Mr. C. had any acquaintance with the directors of a rival institution, or that he as a clerk had any influence with leading city men, and yet three of a family suggested his name. The explanation of their doing so lies simply in the fact that the word "Insurance" suggested their friend Mr. C.; it excited the brain to a certain movement, just as tickling the soles of the foot makes the legs jump in a case of paraplegia. There was probably about as much pure intellect employed in the one case as the other. So uniform are the ideas excited by certain words that one becomes completely prepared for many conversations which take place; as for example, after one's holiday in the autumn, the following kind of dialogue becomes stereotyped:—"Where have you been this year?" "To Ireland." "Did you go to Killarney?" "Yes." "To the Giant's Causeway?" "Yes." "Good morning."—When

all this has been said about fifty times over by different people, one feels assured that Ireland to a mass of persons suggests only two places, and that the conversation was not an intellectual one. At another time it is the following :—
“Where have you been this year?” “To Holland.” “Did you go to the Hague?” “Yes.” “Did you see Paul Potter’s bull?” “Yes.” “Good morning.”—Now, when different persons not in collusion have made exactly this same speech, one is apt to think that it is not men and women we are dealing with, but bees in a hive.

Even in the more important operations of life many of our acts are simply the result of habit, and excited in a reflex manner by a given stimulus; for example, a hard worked medical officer at a dispensary or hospital may prescribe cough mixture to a patient complaining of cough, and a diarrhœa mixture to another complaining of diarrhœa, without a shadow of thought. So automatic is the process that some years ago I sketched out a plan of an assistant-physician machine, whereby certain prescriptions should appear at a pigeon-hole according as the patient pronounced the words diarrhœa, cough, sickness, &c. It would be an instructive task for a physician to take each disease separately, and endeavour to try and discover what is known about it and its treatment, independently of any theories or any fictions of his own mind. Up to the present time I have never seen a single case of leucocythæmia of the lymphatic glands, or the spleen, or simple idiopathic anæmia, without the patients having been saturated by iodine, quinine, and iron; but no case is yet recorded of these remedies having done the slightest good. We shall, however, continue to give them, because they are “likely” remedies. They satisfy the mind of the doctor and patient, and that is enough. More than once, when writing on “scientific therapeutics,” I have shewn that the greater the pretence to rational treatment the nearer was the approach to quackery. The best men in the present state of science are found to be content with facts. The true quack fills a column of a newspaper in praise of a remedy which purifies the blood, adds vitality to the system, and so on. In the legitimate ranks of the profession a scale might be formed according to the amount of “mind,” or “rational method,” introduced into the treatment. The more the “reason” the less the knowledge. It seems as if the human mind must always be satisfied; and therefore since the mass of persons are in ignorance of the mechanism of the body,

and have purely imaginary notions about disease, the shrewdest man (who is the charlatan) can best afford them satisfaction. A highly intelligent patient, aware that he can have no knowledge on the subject, has no fancy to satisfy. A modification of this exists throughout the profession ; so that it would be an instructive task to take each disease and its usual treatment, and endeavour to discover how much of what we say about it is the result of scientific research and how much a pure fiction of the mind. For instance, the value of alkalis in rheumatism rests upon the smallest possible foundation ; their only good seems to be to neutralise the idea of acid which saturates the doctor's mind directly he approaches his patient. Again, in obstruction of the bowel, I invariably hear one doctor ask another if he has used O'Beirne's long tube. I have not yet been informed of any case where the instrument was of any use ; but as it seems reasonable that a tube might reach what the finger could not, it is pleasant to see it lying about in the sick man's chamber. Its utility is quite another matter. Or, again, since all people who are ill are feeble, a very large number take quinine with iron. This medicine pleases both patient and doctor, as its use seems so rational ; but I have no hesitation in saying that a beneficial effect is seen in not more than one in twenty cases in which it is administered. In reading ancient history we take a part of it as true ; the other part as legendary, and framed by the human mind. In a book of medicine there is the same mixture of fact and fiction ; the difficulty is to separate and distinguish.

In making the preceding remarks I have only alluded to the line of investigation which must be taken in order to frame a more perfect system of psychology ; otherwise it would have been as well to have attempted some kind of definition of such terms as instinct, rational act, and habit. To have been able to have drawn a distinct line between these would probably have been to solve the problem which we are at work upon ; but at the present time, with our limited knowledge, we are able to assert that the usual and popular belief that all acts in man where consciousness is concerned are the operation of reason cannot be correct, nor in animals that there must be a like impelling force implanted in them as a separate power when they are performing similar acts unconsciously. These acts are so complex and so perfect that it is thought a divine hand, or some principle within

ruling over the organism, must be at work. Now a little consideration will tend to shew that much that is called instinct is the ordinary working of the animal machinery, and may be performed without any consciousness, or even voluntary effort, on the part of the creature to whom it belongs. How the organism is formed is, of course, another question; but the subject of instinct does not lie outside as a mental problem, but is in the domain of scientific inquiry. Those who are not physiologists are scarcely aware that the simple process of breathing results from a very complicated arrangement of parts brought into harmony by an overruling nerve-centre, just as all the intricate parts of a steam-engine are set to work, in order to drive a wheel, by the single turning of a handle. The movement of the chest, the expansion of the lungs, the opening of the larynx, are all actions occurring in unison. The respiratory centre is stimulated by the air acting on the superficial nerves, and the machine is set in motion. In the same way when we talk, we do not exercise any effort over particular parts, but merely set in motion a piece of machinery pre-arranged; a nerve-centre is stimulated which sets agoing the chest, larynx, throat, tongue, face, &c. If a person talks in his sleep or in delirium, there can be no process of a rational kind in operation, but the centre which rules over "talking" may set agoing the complex machinery on the slightest stimulus. When a child sucks, a very complex action is also taking place, the nerve-centre ruling over the process being stimulated through the lips, but the process is simply reflex. When, however, the young calf seeks its mother's teat, by apparently a voluntary effort or irresistible impulse, another act comes in, which is called instinct. Not that this always happens, for not unfrequently the calf has to be placed near the mother for some days, until sucking becomes simply a result of habit or education. So in the young chick just escaped from its shell, much has been written upon the wonderful instinct which makes it at once pick up its food; but it has scarcely been remembered, or perhaps known, that the movement of the head and opening the beak is a complex process set in action by a nerve-centre. The sight of the food stimulates the creature's nervous system to work, just as the sight of water stimulates the young duck to take the water; the swimming process, like that of pecking, is merely the action of a piece of mechanism. In this way the question of instinct is reduced to simpler terms for its solution, the

only subject for inquiry being—How is the reflex act brought into operation? When a man who, quite unconscious, is swallowing, or talking, or a child is sucking, or a chicken picking up its food, the processes will be found not very much unlike, seeing that they are all set in action by distinct nerve-centres which rule over them. The mode in which the mechanism of breathing or swallowing is pre-arranged is already known to the anatomist, just as he knows the arm has complexity of movements, and yet that these are strictly limited in number by the muscles being grouped together in action by the wonderful interlacing of nerves in the brachial plexus. If a ball were put into a man's hand who was scarcely sensible, and he squeezed it tight, he would be using muscles having the nicest adaptation for the object.

A further understanding of these questions will shew that just as the exposure to air will excite the respiratory act, so the sense of touch will set the whole process of sucking going in a new-born infant; the sense of sight may set the chick pecking for its food; and so indeed the intimacy of all objects with their surroundings is much greater and closer than is at first sight apparent. In fact, the animal is so intimately related to its surroundings that it could not exist without them. What is a jelly-fish when taken out of the water but a mass of albumen, the water being an essential part of its very existence? Take a creature of this kind and watch it drawing nutriment into it and digesting it. We call it an individual, and if of a larger size and higher type, it might have a consciousness and will, but even then it is not very evident how it differs from the human stomach, which appears to have a choice of certain articles of food and dislike of others. The floating stomach is probably no more independent of its surroundings, nor capable of having an existence without them, than the human stomach of living when taken away from its connections with the body. Let us look at the intimate union between the animal and the air in which he lives. Remove the latter, life departs from the earth; it is not simply that the animal breathes to live, but that the air constitutes as much a part of its organism as any of the fluids of its body; for exactly what the ureter is to the kidneys and the biliary duct to the liver, so is the bronchial tube to the lung; the difference being that the contents of the two former are within the body, and form an integral part of it; whereas the contents of the other tube—the air—belongs to the animal's surroundings. So that what is ex-

ternal to the animal is as much a part of its own being as its own organs and secretions. A line of thought in this direction, shewing how all the kingdoms of the earth—the mineral, vegetable, and animal—are intimately united, how, indeed, they melt the one into the other, will, no doubt, lead us towards solving many of the problems of interest which we have been discussing.*

There is also another very important issue which will result from a true physiological study of man, and that is the value which will accrue from the grouping together of persons after the manner of the old temperaments; so that we shall be able to associate more closely man's nature in all its intellectual and moral attributes with his physical formation. These temperaments, as originated by Hippocrates, were four in number, and the classification has been in use to this day. The division is rather pathological than physiological, and has for its object the determination of the particular diseases to which each class is liable. A pathological division of mankind is not what we require, especially as we should find that a classification founded on healthy or normal form would necessarily carry with it certain morbid tendencies. Thus the man whom the physician calls gouty is often a burly Englishman, possessed of a good physique, and having great activity of mind and body. He accordingly requires a designation appropriate to his general characteristics, and the physician may afterwards mark him as a man having proclivities to certain diseases. So, again, we say a person has a consumptive tendency, and that another is disposed to melancholia or mania; but these names, expressive of morbid peculiarities, should not be used for designating a healthy class of people. In a perfect grouping, not only should the medical man be able to recognize certain pathological tendencies, but the artist should discern the differences in form, and the psychologist in an equal manner the varieties of mind, taste and disposition. A true system of phrenology and physiognomy might well accord with the

* The grand idea pervading the scientific mind is the association or actual correlation of all the forces in nature, and that the same unalterable laws are in operation in the earth, and all that therein is. When Tyndall, in his admirable lecture, asserted this, it was naturally opposed by those who had other notions of terrestrial operations. This must be the case, when, for example, a distinguished divine can speak of a person's death as the result of Sin (meaning the devil), and afterwards speak of coal as having been given us by Providence (meaning God); asserting that an Evil Spirit causes decay of the animal, and a Good Spirit decay of the plant.

doctor's view of temperament. A good artist can depict, not only the general character of the sitter, but his state of mind and feeling at the time he is drawn. The same student of nature would also probably know that there are general characteristics belonging to every person, and that there are certain curves and lines traceable through the face, body, and limbs, so that he might, upon being given one part of the body, complete the rest.* Physiognomists may have pretended to powers of diagnosis greater than they have possessed, but they have discerned the fact that certain forms of feature imply a peculiar formation of the skull, and therefore of the brain within, and in accordance with this also a particular fashioning of the body. For example, in all times it has been remarked that men with large noses have been men of action, men on whom dependence could be placed in case of emergency, and thus have made good generals; witness the resemblance between the faces of Julius Cæsar, the Duke of Wellington, Von Moltke, and Sir G. Wolseley. On the contrary, the straight Grecian nose has been associated with intellectual and artistic culture, and often with sentimentality and dreaminess. Along with these different features the form of the body differs, and often in a marked degree the hand, so that the latter has often been taken as a type of character. It has been observed, for example, that the large hand has accompanied independence of thought and action, whilst the smaller hand, with tapering fingers, has belonged to those families who for generations have performed no manual labour, and who belong to the richer and satisfied class. The ancients saw so much in the hand, and in the development of this member as man rose superior to other animals, that they asked themselves the question whether man was the most wise because he had a hand, or had a hand because he was most wise; now probably the development of the hand, as well as the bones of the skull which determine the shape of the nose, have a close relationship with the brain within, as we know that the limbs are ruled over by the central cranial ganglia, and these again by the central masses which surround them. Physiology already

* I know a young lady who takes the flowers of the heartsease, and finds in them, according to the markings on the petals, different expressions of faces. These are pasted in an album, and then the body of a gentleman or lady in different attitudes is drawn to complete the figure—the face, of course, suggesting the remainder.

shows an intermediate correspondence in form and power between the limbs and all other portions of the body. That the limb is an exponent of the anatomy and physiology of the whole body is clear from the zoologist using it as the basis of his classification.

The subject I have been touching upon is so large, that it is difficult to withstand a discursion into many other matters, but I must add that these few remarks have not been carried sufficiently far to afford any test of the condition of mind known as the unsound. I have spoken of the ordinary mortal man who is made by the circumstances around him, like many other animals, and cannot soar above them; the sanest man I apprehend is he who can make use of these circumstances, and arrange and order them for his purpose. On the other hand, a person who is totally unaffected by his surroundings, and lives in a world of his own creating, would be in common parlance insane. The first class of persons, and who in the best sense are scientific, are probably the most valuable persons of the community, especially if, as Buckle says, civilization means material advancement; but the others have a type of mind altogether different, and, in less degrees than can be called madness, their imaginations run riot, their thoughts soar high, their ideas flow quickly, they believe themselves possessed of powers which others have not, they say they "know" what others require to prove, they have missions, and can reform or at least enlighten the world. Such persons often constitute great poets, or artists; they possess creative power, and thus constitute for a time the leaders of public opinion. The sober-minded man, the man who can coolly survey and measure everything around him, calls such people mad, and yet amongst them have been found those of whom the world should be proud—those who have infused poetry, literature, and the arts into the masses of society. The mere unlikeness to the common-place mortals is sufficient often for the designation madness, and as Shelley says of another, "And he was mad, if madness 'tis to be unlike the world." In looking through the pages of authors who have written on insanity, we meet with names illustrating their subject, such as Mahomed, Swedenborg, Robert Hall, Dr. Johnson, Blake, Charles Lambe, and many others whom England is proud to have produced. Now, if this is so, I would ask—Has the time arrived in which we could adopt

any of those rules in the choice of marriages which can be followed in the breeding of animals, as is suggested in Lothair? "It is the first duty of the State to attend to the health and frame of the subject. The union of the races concerns the welfare of the commonwealth much too nearly to be entrusted to individual arrangement." The subject has been lately developed in one or two essays, and more especially in reference to the mixture of the insane element into human society. In reference to this it must be said, that at the present time we have not sufficient knowledge of temperaments, under what conditions they arise, and, in fact, how they are produced; nor do we know, when regarding certain temperaments, how the good and bad are intermingled, that is, how with what we call morbid tendencies there may not be important bodily and mental characteristics and activities of great value. One kind of person whom England is apt to produce some would purposely avoid as being liable to gout, with all its attendant evils; and yet though gouty, he is a vigorous, active, independent man. Another kind of person, whom we call consumptive, and which England is also especially apt to produce, would be avoided; and yet there is in him often a wonderful activity of mind and body. Then, again, if the person inclined to insanity is the one above all to be shunned in a marriage connection, it might turn out that we were losing some of the best blood of the country. It is no doubt fearful to think of a man or woman marrying with a strong taint of insanity, and bringing into the world a family of lunatics, but it does not follow that an infusion of the insane blood may not be desirable.* I think it might easily be shown that such infusion has given genius to a whole family; it has leavened the whole mass. There may be an intellectual element which in moderation is good, and in excess is none other than madness, in the same way that common sense may find its acme in an inactive dolt. It is this very case of the supposed value of getting rid of the insane element in society, that would make me hesitate before I offered any restrictions to marriage, or dared to dictate to my fellow-creatures as to the impropriety or otherwise of mixing certain temperaments. It may be, as I just now observed, that it is the insane element which imparts what we call genius to the human race, the true celestial fire; and

* I believe Dr. Maudsley has also expressed this opinion.

thus it is that the madman has been called inspired, and thought to have in him a touch of the divinity. I, for my part, if one can look at such a question from a personal point of view, sometimes feel when one has been engaged in pursuits of a scientific character, has been cultivating a cautious habit of mind, endeavouring to look at every subject all around, and avoiding speculating or even theorizing on any matter, for fear of a false issue, that it is an actual relief to meet with some one not so tied down, one who is a seer, who looks into the depths of things, and then pours forth a flood of brilliant ideas, with the most poetic fancy. My own feeling in going into an asylum is not that with which I enter a menagerie, or even a hospital, but I gaze on my fellow-creatures with awe, and not unfrequently with admiration. My feeling has sometimes been rather that of envy than pity, and I should have had no hesitation in parting, had it been possible, with part of one's own slow and prosaic nature for a portion of their confiding ecstasy. If there be an element of truth in what I have said, the time has not assuredly yet come when we can form any rules for the intermarriage of our citizens, much less commence with the attempt to eliminate the class of persons of whom I have been speaking.

The main purpose of the present paper is to show that the study of the human mind in a purely scientific manner from observation, leads us to different conclusions from that which is arrived at by the older method founded on self-consciousness ; the main result of the inquiry being that a large part of human actions are of the same kind which are observed in the lower animals, and may be called reflex, or the result of habit. It is no part of the scientific inquirer's business to ask whether his conclusions tally with any popular views on the subject, and to ask where they lead to, but should he desire it, knowing that every conclusion drawn from nature and fact cannot be opposed to any other fact, but only to some preconceived idea or fiction of the human mind, he can always frame as good a theory as any other person which shall be suitable to his idea of the world's government and history. He may say that the man thoroughly imbued with the spirit of nature sees the same laws prevailing in the solid earth, the sea, the plants, the animals, and himself ; sees the universal harmony, and feels himself, in consequence, more closely bound to all the objects around him. In his sympathy with

every object in nature, as well as every living thing, he does not feel himself more debased than when he erects himself lord of the creation, and regards all objects below him as for his use and subject to his will. In mixing with his countrymen he feels how he has grown up under the same influences, and that all their minds have been formed in the same mould; and that other men, speaking another language, have been subjected to other but similar conditions; and that each race has its own characters stamped upon it. The reflection will make him more charitable and less conceited or vainglorious, and give him a little insight into what is meant by the brotherhood of nations. He can see that, as a necessary part of man's independence, he must have a strong feeling of individuality, and that this may lead him to be self-seeking, and to endeavour to supplant his neighbour by all those modes which constitute our principal crimes; but he will the more strongly feel that it is this very denying of self, and suppressing this powerful impulse, which constitutes the leading Christian virtue of "loving one another," and "doing to another as you would do to yourself." And if a higher flight be taken, the evolutionist sees nothing in his theory which militates against the survival of the mind of man, and its still further progress and development into a final consummation. The eternal truths can be found in man's nature and in the world in which he dwells, as Tyndall has lately shown in his eloquent address, and not only found by the scientific inquirer, but by the devout worshipper of nature, like Wordsworth, whom Tyndall quotes. The poet can use orthodox phraseology with the deepest religious feeling, and declare that as man was made after God's image, and that as man belongs intimately to the earth, so the same spirit pervades all.

"Come then, prophetic Spirit, that inspirest
The human Soul of universal earth."

"While my voice proclaims
How exquisite the individual mind
(And the progressive powers perhaps no less
Of the whole species) to the external world
Is fitted:—and how exquisitely, too
(Theme this but little heard of among men),
The external world is fitted to the mind."

Nervous Symptoms in Cases of Congenital Syphilis. By J. HUGHLINGS JACKSON, M.D., F.R.C.P., Physician to the London Hospital, and to the Hospital for the Epileptic and Paralysed.

Some years ago I published a pamphlet (reprinted, with slight alterations, from the "St. Andrew's Medical Graduates' Transactions," vol. iv., 1868) on Nervous Affections in Inherited Syphilis. At that time I had had but one post-mortem examination. The patient was a girl, the daughter of the patient Joseph Mx., whose case is the second of two related by me in this Journal for July, 1874. She had epileptic fits. She died of typhoid fever, and no lesion of a syphilitic nature was discovered post-mortem. Thus I learned nothing from this case. In the "Brit. Med. Journal,"* May 18, 1872, I have reported a case of hemiplegia, previously unpublished, in a woman aged 22, who was manifestly the subject of inherited syphilis. That patient was in good general health, and is, I hope, still living.

In the "London Hospital Reports," vol. i., 1864, I gave particulars of several cases in a syphilitic family. There were four children. The eldest, a girl of 18, had good teeth, but remains of old iritis, and scars of ulcerations at the angles of the mouth. Her general health seemed good. A girl of 15, whose sight was much impaired from choroiditis, and who had imperfect hemiplegia. This child had the malformation in the teeth (*Vide infra*). A girl, aged 12, who had the same malformation and choroiditis. A boy aged 8, paraplegic, partly idiotic, and who had had several fits. This boy was quite blind; both optic discs were found to be dirty white, margins obscure, vessels small, and fundus hazy.

I have, unfortunately, no post-mortem evidence as to the pathology of the nervous system in any case of congenital syphilis. In the case I am about to relate I obtained no autopsy. The subject, however, is of such vast importance that I draw attention to some of the clinical facts of it, with the hope of making investigations more methodical.

Now and then I see children and young people who present unmistakeable signs of hereditary syphilis, and who have also definite nervous symptoms, *e. g.*, hemiplegia, epileptiform

* There are, unfortunately, two printer's blunders in the article in that Journal. In the 17th line from the top, for "such evidence of hemiplegia," read "such evidence of congenital syphilis;" and in line 23 from the bottom for "his upper central" read "her upper central."

convulsions, &c. I speak only of cases in which the patient's own body presents decisive signs of congenital syphilis. But in the absence of post-mortem examinations on such cases, it would be not sagacity but laziness to assume confidently that there was a connection—to speak of them as, for example, “hemiplegia *caused by* congenital syphilis.” I had recently under my care a child who was hemiplegic, and who had remains of double choroiditis; another young girl who had a large hole, no doubt the result of syphilitic disease, in her palate, and hemiplegia. The hemiplegia in both was of the common kind, affecting the face, arm, and leg of one side. That these patients were syphilitic was clear enough. But what medical man does not see cases of hemiplegia of this sort in children, where there is no trace of probability of syphilitic taint? To speak of “eliminating all other causes” is not really so practical as it sounds, for nothing is more difficult than to form a reasonable conjecture even as to the cause of hemiplegia in childhood (excluding epileptic hemiplegia with double optic neuritis, cases with valvular disease, and other easy cases). And I wish to point out that even assuming that we could by some means be quite confident that congenital syphilis caused a child's hemiplegia, we should be only on the threshold of a very difficult pathological inquiry. The following is necessarily speculative, as it is not founded on post-mortem examinations, but it states correctly what takes place in a certain form of hemiplegia from acquired syphilis in adults.

As to the general *position* of the changes causing the hemiplegia in children, there is no room for doubt. The hemiplegia is (in range) just like that so constantly met with in the hemiplegia of persons of middle age from local softening, and from cerebral hæmorrhage. The difficulty is the *pathology*. We may say there is (in long standing cases of hemiplegia of children) atrophy of the opposite side of the brain; this would be highly probable. We might go further and say that in all probability there was in such old standing cases a cyst in the corpus striatum. But it would be a very crude statement to say that syphilis caused atrophy of the brain and a cyst. In order to tell whether syphilis brought these changes about we want more facts as to the state of the brain at the onset of the hemiplegia. The atrophy and the local cyst are relics of long past acute changes. I suppose the cyst represents past softening from thrombosis, and the atrophy is a consequence of that local damage. If, then, we

assume as a provisional hypothesis that there was at first local softening from thrombosis, the next question is—"By what process did the artery become occluded?" Having regard to what is well known of one common mode of causation of hemiplegia by syphilis in adults, the question is, does congenital syphilis lead to hemiplegia in children through gummatous disease of the middle cerebral artery permitting thrombosis of that artery?

In adults there are two other ways in which syphilis leads to hemiplegia. There is epileptic hemiplegia associated with gummatous disease of the surface of the hemisphere, and there is hemiplegia caused by a gummatous growth in the motor tract. Possibly congenital syphilis in some cases causes hemiplegia in these two ways, as well as by thrombosis of a syphilitic vessel.

These remarks, which are certainly true of hemiplegia from syphilis in adults, shew that the seemingly definite expression "caused by" congenital syphilis is far from being a precise expression. The hemiplegia in the first results because there is softening of the corpus striatum; in the second it follows, and, as I believe, is caused by, a strong epileptic discharge; and in the third only is it caused by a syphilitic growth actually squeezing nerve-tissue.

I have had under my care recently a girl who had hemichorea. She had the dental malformation described by Mr. Hutchinson, and also remains of keratitis. I believe these to be certain signs of congenital syphilis. I see, however, no warrant for a decisive conclusion that the chorea was "caused by" the syphilis. The case was the sixty-second of about eighty investigated most elaborately by myself and Mr. Herman. It is the only one of the series in which there is evidence of congenital syphilis. It is true that in this girl's case there was no evidence of any other mode of causation. But this is not very unfrequently so in cases of chorea. So that if here I "eliminate other causes," we should conclude for congenital syphilis if we determined to come to a conclusion. But we are not bound to come to a conclusion without evidence. I do not, however, think there is even a probability of connection, for I have seen scores of cases of chorea essentially like the one alluded to but without any evidence of syphilis. In the pamphlet already mentioned I record a case of chorea occurring in a girl who was a member of a family in which there was clear evidence of syphilitic taint; she afterwards died of heart disease. I attended her mother

for rheumatic fever, and again for a fatal illness from heart disease. I also saw the child's brother for rheumatic fever. Here it was much more likely that the rheumatic taint was at the bottom of the mischief in the girl who had chorea.

Without any contradiction I may urge that nervous affections with congenital syphilis do not receive the attention they deserve. For the very reason that I am anxious to develop the subject, I have urged that in the absence of post-mortem examinations we can only arrive at probability. To speak decisively of symptoms as being *caused by* hereditary syphilis when there are no post-mortem examinations to refer to is only verbally decisive. It is verbally very definite to say "a square is round," but it is impossible to think so. He who speaks of hemiplegia and convulsion as "caused by congenital syphilis" is not only saying what he does not know, but what he cannot know. It may be said that from clinical evidence we conclude that lead-poisoning *causes* paralysis of the extensors of the forearm. But this is not a parallel case. The variety of paralysis is a rare one, and is scarcely ever found except in cases of lead-poisoning. If we saw a patient who was hemiplegic and the subject of lead-poisoning, we should not conclude that his hemiplegia was "caused by" lead-poisoning,* even if we could find no other explanation; we should leave the case unexplained rather.

So far as I have seen the hemiplegia and convulsion which occur with congenital syphilis do not differ from those symptoms as occurring in patients who present no evidence of that taint.

With regard to treatment, the person who concludes is in no better case for his conclusion than the other who waits. For no educated medical man would hesitate to treat syphilis whenever he found it, or, with reasonable exceptions, to treat local symptoms or symptoms implying local lesion, by anti-syphilitic remedies whenever he found them in a patient whose body presented signs of congenital syphilis.

Signs of Congenital Syphilis-Dementia.—Father died Insane.

The following notes were taken in the summer of 1872 :—

Samuel L., aged 15, is the subject of congenital syphilis. The evidence supplied by his own person is (1) that he has that malforma-

* I do not mean that lead-poisoning may not lead *indirectly* to hemiplegia, for in some cases we find gout, chronic renal disease, and arterial degeneration. So, in a roundabout way, lead-poisoning may "cause" hemiplegia.

tion of the upper central incisor teeth which has been described by Mr. Hutchinson as characteristic of congenital syphilis. The lad's upper central incisors are small, and narrowed at their cutting edges; they are not notched.* (2) There are in the left eye remains of choroiditis; there are numerous pigmented patches. The left optic disc is atrophic (greyish). The cornea is clear.

The striking thing was that in the right eye there was nothing abnormal, although the left was much diseased. Both Mr. Hutchinson and Mr. Waren Tay agree in this. Obviously this non-symmetry in a disease so very "constitutional" as syphilis is of marked interest to students of disease of the nervous system. The choroid is the pia mater of the eye. This matter is so important that I must give a brief account of Mr. Hutchinson's opinion on the matter.

At first glance the one-sidedness of the condition appears to go against the diagnosis of congenital syphilis. Mr. Hutchinson, however, considers it to be the rule for choroiditis in connection with tertiary syphilis to be unsymmetrical, and this remark applies alike to that resulting from inherited and to that from acquired disease. It is not, however, he tells me, usual to find, as in this boy's case, that one eye is *quite* free from changes. He has, however, seen a few similar cases. The common condition is for one eye to be severely affected and the other only slightly. And he thinks that in some cases of choroido-retinitis in connection with hereditary syphilis in which the changes simulate those of retinitis pigmentosa the non-symmetry is a valuable point in diagnosis. Mr. Swanzy, of Dublin, has published an interesting example of this in the "Dublin Quarterly Journal," May, 1871. Mr. Swanzy there quotes a letter of Mr. Hutchinson's.

* The following extract from the pamphlet mentioned at the beginning of this article embodies some of Mr. Hutchinson's opinions:—"It is important to keep in mind the fact that this valuable test of the existence of a syphilitic taint in a family is to be found usually in but one of the children of that family. It is to be particularly observed that although Mr. Hutchinson has described many dental peculiarities in children, he relies only—for a test of congenital syphilis—on a *certain* malformation of the two upper central incisors of the *permanent set*. Normally these teeth are chisel shaped, *i.e.*, *broad*er at their cutting edges than at their insertions into the gum. The malformation which Mr. Hutchinson has discovered to be a sign of congenital syphilis consists (First) in a reversal of the normal shape so far as this, that the two teeth above-named are *narrow*er at their cutting edges than at their insertions into the gum. Hence they are then, as Mr. Dixon has observed, like 'screw-drivers.' (Second) The teeth are *often* notched. Hence such teeth are often called 'notched teeth.' It is well to add that Mr. Hutchinson attaches no special importance to 'bad teeth,' to 'irregular teeth,' &c., but, I repeat, to a particular kind of malformation of two of the permanent teeth."

Family History.—Two years before his marriage the father had a skin disease, and had a bad sore throat. He is dead; hence the vague history. Moreover, he died insane in Colney Hatch. The boy's mother, six or seven months after marriage, lost "all her hair" (no doubt an exaggerated expression); soon after marriage she suffered from a severe sore throat, which lasted seven or eight months; her tongue was very sore; she had a skin disease "like small boils or pimples."

The mother had seven children born alive. The following gives the results of all her pregnancies:—(1) Still-born. (2) Died at age of one month (3). Samuel L., the subject of this report. (4) A child who now suffers from a skin disease. (5) Miscarriage. (6) Died at the age of five months; suffered from "snuffles," and had a skin disease. (7) A miscarriage. (8) A child who has a skin disease. (9) Died at the age of six-and-a-half months; "used to break out in the head," and suffered from snuffles. Nearly all the children, including our patient, suffered from a rash on the buttocks when infants.

It is important to note that our patient is the eldest living. This boy has not had keratitis. He may yet have it.* There is in my mind no doubt that this lad was the subject of congenital syphilis. The dental malformation, to say nothing of the choroiditis and of the family history, is, I think, decisive. A good many years ago I had the inestimable advantage of working with Mr. Hutchinson, and as a result of seeing many cases with him I was convinced that he was right in his assertion as to the diagnostic value of the malformation of the teeth he describes. So far as it goes, the family history supports the diagnosis founded on the dental malformation and the choroiditis.

Of course it is not said that congenital syphilis does not exist without either the dental malformation or the interstitial keratitis. On the contrary, it has been stated that these signs usually exist only in the eldest living of a syphilitic offspring. The younger children, no doubt, suffer in slighter degrees.

Normal Mental History.—The following facts as to the history were obtained after the lad's death by Mr. Mercier. The boy lived at a distance; he rarely attended, and thus the records were imperfect:—

* I remember once seeing in Mr. Hutchinson's practice a boy who had the dental malformation, and who was brought for amaurosis from optic atrophy; keratitis came on whilst he was being treated for the amaurosis.

As a child he was rather precocious ; he talked earlier than the other children ; mother cannot say at what age. Learnt to read and write early. During the greater part of his life he was by no means unintelligent ; he was quick and ready, had an excellent memory, was fond of reading ; wrote, his mother says, very good letters. He was careful of his money, but not miserly. Saved it up, and spent it upon clothes and other necessities. For a short time he taught in a school, and the schoolmaster was satisfied with him. He left off because his family moved. He spoke well and sensibly on general topics (father-in-law instanced religion and the Abyssinian war). He never played much, but spent his spare time in reading and writing. He was obedient and submissive ; good-tempered, affectionate, not mischievous, not passionate. He was fond of music ; he was very religious.

He never did odd things, nor behave strangely. The only thing mentioned was that when he made a mistake in writing orders (which was his work) he always tore the page out instead of cancelling it, and of this he never could be cured. Now and then he would forget where he had laid things, and occasionally he would leave his medicine in the railway carriage.

Abnormal Mental Condition (1872).—He looked listless and sullen, and was evidently fatuous. I am obliged, however, since I only saw him as an out-patient, to rely for positive facts on what his mother told us. The following notes were taken for me by Mr. G. E. Herman. I incorporate with them some notes taken by Mr. Mercier:—

Some months before his actual mental failure a ship in the yard where he was at work caught fire, and this seems to have affected him a great deal. The other boys used to tease him, and say that he set it on fire, and he used to come home and ask his mother whether he could have done so. It is certain that he did not, and that he was some distance away when it happened. After this he became very much addicted to masturbation, then his memory began to fail ; he got dull and stupid, took no interest in things, but would sit by the fire and fall asleep. He became very sleepy, and would fall asleep under almost any circumstances. For several months before I saw him he had been in the habit of bringing home and hiding things that did not belong to him in the workshop ; he would hide the men's tools, and when they asked for them, "he looked so innocent, you'd never think it was

him.”* “We have told him we’d put him in prison, and such like, but it takes no effect, he doesn’t seem to care.” He did not take money, nor did he sell the things he carried away. “A short time before his father’s mental failure he was in the same way.” “He seemed so dull, and heavy for sleep.” “He is so dreadful forgetful; orders are always coming back.” “He writes so badly; he used to be a beautiful writer at one time.” “He drags along the streets just like an aged man.” His temper is very violent, “he is so spiteful; sometimes he seems so fond of his sisters, and other times would almost kill them.” He sleeps a great deal; often pulls off his clothes, and lies naked. His mother has seen a discharge on the sheet, “like dirty water,” which stiffens the sheet; a spot about as big as a five shilling piece. He has no sore.

He is fond of singing and music; has seemed rather more so lately. He soon ceased to attend. We afterwards learned that he died on October 13, 1874. The mother says that he died of some fever; she thinks scarlet fever, because his skin peeled when she wiped his face. There was some difficulty in getting the facts from the parents. For the last six months of his life he stammered, but no particulars of the stammering were to be obtained. He never lost power in either hand, never had a fit. A fortnight before his death he lost his speech altogether, but the mother is sure from his gestures that he retained his consciousness. There was no autopsy.

We are justified in concluding that this boy’s right choroid had at one time suffered from syphilis, and thus the *hypothesis* was, for the sake of treatment, warrantable that his *via mater*, the “brain’s choroid,” had suffered similarly,—had been the seat of a “*pia matritis*,” analogous to the choroiditis. My speculation is that there was local syphilitic disease, followed by general atrophy of the hemispheres. It is well known that extensive *local* damage (clot, softening, or tumour) in a hemisphere leads slowly to general wasting of that hemisphere.

Treatment did no good. But this did not negative the existence of syphilitic brain disease. Treatment is only likely to be useful during active syphilitic changes—as iritis, keratitis, ulcerations, nodes, &c. Besides in adults most syphilitic nervous symptoms are only indirectly owing to syphilis. To return to a previous example: the common form of hemiplegia in syphilis is owing directly to softening of the

* The words in inverted commas are his mother’s statements.

corpus striatum, to a condition just like that occurring from embolism. And when there is a syphilitic growth in the cerebral hemisphere, most active anti-syphilitic treatment in many cases that come late under our care only delays, does not prevent, a fatal issue. It would be as reasonable to expect to rid the pupil of lymph effused in an acute attack of iritis months before we saw the patient as to restore a brain damaged by syphilitic changes which were active months before. For general cerebral atrophy consecutive on local syphilitic disease we could do nothing.

If there were syphilitic disease of the brain it was in all probability of the connective tissue, and thus it was primarily non-nervous. In nearly all cases of nervous disease in which there are obvious post-mortem changes, it is plain that the changes are primarily non-nervous. Certainly all I know of syphilitic affections of the nervous system in adults is that they are diseases of the connective tissue entering into the composition of nervous organs or their arteries. I need not deny, however, that syphilis leads directly to changes beginning in nervous tissue; although I confess I do not see the evidence to warrant that conclusion. Let us again assume, as we did for the sake of treatment, provisionally, that syphilis did in some way cause this boy's mental illness. This is only the beginning of a difficulty. We cannot suppose that syphilitic or any other sort of disease of the cerebrum would *cause*, that is cause directly, such strange doings as those noted by Mr. Herman. It does not help us, to assume that the syphilis led to general cerebral atrophy. Atrophic tissue would "cause" nothing. Such doings are necessarily the result of action of parts of the brain which are *not* diseased. My own speculation is that the boy had by inheritance an imperfect brain, and that any sort of disease, syphilitic or otherwise, could have led easily to *loss* of the higher intellectual and emotional faculties, and indirectly from this "loss of control," or lack of inhibition, to increased play of the lower faculties. He had little higher faculty to lose.* The odd doings occurred from quasi

* We had a patient in the London Hospital, who, fatally ill from large cerebral hæmorrhage, was seen by Dr. Sutton and Mr. Lewis Mackenzie to twirl his moustache very elaborately every now and then. Except for this the man was to all appearance deeply comatose, and died a few hours later. It would be as reasonable to say that the clot of blood "caused" this moustache twirling, as to say that syphilitic disease or cerebral atrophy "caused" such symptoms as "hiding tools."

automatic action of centres left uncontrolled, the *disease* being of the highest or controlling centres.

The boy's father died insane in Colney Hatch Asylum, and this fact supports the inference above drawn. There were two factors, an imperfect brain by inheritance and disease.

The facts stated under the heading Normal Mental History do not invalidate the inference that the boy, besides receiving a syphilitic taint, received also an imperfect brain. For the facts show a precocious cleverness rather than intelligence, a style of ability quite consistent with a want of a high and robust intellect. Mere cleverness is no good sign of mental superiority; on the contrary, precocious cleverness in children is an evil sign. Cleverness is automatic intellect, and is comparable with instinct; the merely clever child does not go on developing, for he does not inherit much latent higher faculty to develop. Anstie gives us one sign of what is called the Insane Diathesis or Neurosis (I quote from Bucknill and Tuke), "Unexpected development of intense artistic feeling in children born of a naturally commonplace family." It is well known that idiots are often "clever" at music. In the Hospital Reports of the "*Lancet*," Feb., 1866, I mention the case of a speechless boy whose mental condition was very imperfect. His mother said, however, as evidence of the contrary, "But he has such a wonderful idea of music!" Since that report, I have seen many cases of grave mental inferiority in children who could sing and hum tunes correctly; cases of partial idiocy in fact. In an able paper in the "*Journal of Mental Science*," Oct., 1872, Dr. Ireland writes, "It is common enough for parents to found hopes upon their children having a good ear for music,* but this seems a gift common to all kinds and degrees of idiots."

The excessive masturbation is a fact of great clinical importance. Mr. Mercier says there was clear and abundant evidence of it. I do not, however, think it likely that it was a *cause* of the mental degradation in this case. I think it was rather the consequence. In all diseases affecting the mind, there is a reduction, not only to a lower intellectual level, but to a lower level of feeling, and in slight degrees

* "On retrouve les traces de cette persistance partielle de l'intelligence jusque dans les formes les plus avancées des dégénérescences héréditaires. Il n'est pas rare, au milieu de l'anéantissement des facultés psychiques qui caractérisent l'idiotie héréditaire, de voir survivre une faculté intellectuelle. Ces êtres dégénérés possèdent pour la musique, le calcul, le dessin, la poésie, etc., une aptitude instinctive, native, qui paraît d'autant plus extraordinaire que le contraste la fait briller d'avantage."— *La Folie Héréditaire* par le Dr. Legrand du Saulle.

there is seen to be only an apparent intensification of the inferior parts of the natural disposition. The vulgar man talks and acts offensively, the spiteful man becomes actively malicious, and the sensual man is openly indecent. I believe, then that, as a rule, insane patients masturbate as a consequence of disease of the brain, and from the same cause that many of them become peevish and greedy. There are some cases in which there is a strong warrant for the assumption that masturbation primarily causes grave mental disease, but in some of the best marked cases I have seen there has been inherited predisposition to mental disease. Obviously mental degradation, however begun, would be helped on by masturbation. The mental disease introduces a new or secondary cause of mental depravation.

I would here remark that I do not believe masturbation causes epilepsy, or chorea, or any such symptoms, any more than I should believe it could cause paralysis of the portio dura nerve. It is sometimes replied to such a statement as this, that it is a "question of fact." It is not a question of fact with me, because I admit the fact, that is, I admit that many epileptics masturbate. All I deny is the inference that masturbation has caused their epilepsy. That it is one of the gravest factors in producing mental deterioration is no proof that it leads to an entirely different class of symptoms, any more than the fact that lead-poisoning causes paralysis of the extensors of the forearms is proof that it causes hemiplegia.

The Morbid Psychology of Criminals. By DAVID NICOLSON, M.B., &c., Medical Officer, Her Majesty's Convict Prison, Portsmouth.

(Continued from page 185, vol. XIX.)

We were engaged, when we left off last, in considering some points bearing on the prison-conduct of criminals in relation to their crimes; and we now proceed to show how various questions as to mental condition are started by prison-misconduct.

Let us take the commonest of cases:—a prisoner misconducts himself and creates a disturbance by shouting and hammering in his cell, perhaps also breaking his window and furniture. This statement of the case is just such a

one as the warder in charge would hand to the governor in reporting the circumstance. Judging from the bare facts, to what possible sources is the conduct attributable? They are four: 1st—*Ill-temper and devilment*; 2nd—*Morbid impulse*, such as might be led up to by a prison-delusion in a weak-minded criminal; 3rd—*True maniacal outburst*; 4th—*Feigned Insanity*. Sometimes, of course, when the indications are plain, and when we have a previous knowledge of the prisoner, no difficulty is found in arriving at a conclusion as to the origin of the misconduct. The comparatively speedy subsidence of the signs of excitement, as well as the immediate history of the occurrence (probably a quarrel with his warder), will generally tell us when the display is merely one of temper. Putting aside mere temper, we then ask ourselves: are the mental manifestations real, or are they pretended? or, indeed, are they partly real and partly pretended? for some of the weak-minded class are found to sham the loss of what little senses they have.

It is, in many cases, most difficult to satisfy ourselves as to the right value to put upon them. Prolonged and careful observation of the individual is often necessary, as well as an investigation into the circumstances of the case, the existence of probable motives for deception, the previous behaviour of the prisoner, &c. But after all, after we have thought it out to the best of our ability—even after the case has been decided on, and, perhaps, dealt with in accordance with our recommendation—there may yet remain a considerable cloud of uncertainty as to the actual mental condition. We may be morally certain that the anomalous signs were only pretences; but yet some of them were such as real disease might give out, and we are chary of deciding hurriedly in the face of the fact that with our decision lies the responsibility and punishability, or the reverse, of the prisoner in question.

We pause, we doubt, we observe, we pause, and so on; until perhaps some trivial accident, possibly the individual himself, reveals the imposture, or else something occurs to establish the genuineness of the case.

Look how many there are who go the rounds of prisons and asylums!—now a convict, now a lunatic, again a convict. Like a bad coin, with its obverse and reverse impressions well executed, the mind of such an individual seems to bear the stamp of Insanity on the one side, and of Criminality and Vice on the other; and hence the results of inspection are

found to vary, according to the side that turns up, when the conduct of the man, like the ring of the coin, excites attention and suspicion.

The following cases will serve to illustrate what I have been saying :—

F.L., aged 34, was sentenced, in 1870, to seven years' penal servitude, at Birmingham, for larceny after previous conviction. From the Borough Prison at that place he was soon after sent to Broadmoor Asylum as insane. From Broadmoor he was transferred by Dr. Orange, the medical superintendent, to Millbank Prison, with the following remarkable history: "He has undergone two previous sentences of penal servitude. He was sent from Millbank to Bethlem in 1855, when he passed by the name of Coe. It was believed that he feigned insanity. In 1860 he was sentenced again, but it is not known by what name he then passed. He served the greater portion of that sentence at Gibraltar. In April, 1867, he was admitted into Broadmoor, passing by the name of Charles Mont.* On this occasion he confessed he was feigning, and he was sent back to Bristol Gaol, in July, 1867. On the present occasion there is no doubt that he feigned insanity at Birmingham, but he discontinued this feigning on the day after his admission into Broadmoor."

At Millbank Prison he became troublesome, and Mr. Wilson, then assistant-surgeon, reports in his notes that he had become excited, violent, and filthy, eating his own fæces, and those of other prisoners. His attacks of excitement were followed by great tremulousness, which lasted for several days. He was ultimately removed to Woking Prison, as being of weak mind, in the opinion of Mr. Gover, the medical officer.

At Woking, where I first made his acquaintance, his violent conduct continued; he was confused and agitated in manner; rambling and to some extent incoherent in his conversation; on one occasion refused his food for several days, and afterwards made a sort of an attempt to hang himself with his stockings. Was sent back to Millbank, where, for a time, he gave up his violence and was behaving better, although given to excitement and to talk loudly, with a great show of earnestness and gesticulation, as well as of agitation. Later accounts show that he is again violent, and full of threats that he will smash the doctors and officers of the prison. Such conduct has continued more or less for four years; and how inexplicable is it all! My impression is,

* Found insane on trial, and ordered to be detained during her Majesty's pleasure.

that he has a disturbed condition of his nervous system, and that he gives way to his impulses through a *moral incapacity* to restrain himself. Intellectually, he is no worse off than many criminals are, and he is quite capable of feigning insanity (of intellect) whenever it suits his purpose to do so. Punishment would not avail with a man of this sort, even if he were to be held fully responsible for all he does. There can be no doubt, at least, as to his weak-mindedness. He is shown to have been in four different asylums at various times in his life, as well as in a goodly number of prisons and gaols.

The next case, although differing in the type of morbid display from that of F. L., was somewhat similar as to an experience of prison and asylum life.

Convict C. W., alias J. T., &c., aged 35, had been repeatedly in prison, under various names; his offences being larceny and burglary. Has not the rough, criminal look about him; rather spare and pale; looks downwards and askance, with a sly, cunning, and suspicious expression. Has usually a quiet demeanour, and talks with a sort of cynical sneer; when questioned, replies rationally but shortly, unless he gets on to his special topic—that of having committed a murder, near Plymouth, for which “they” are to murder him in return; for this he is quite prepared, and does not care so long as they do it in a fair way. Is altogether idle, and simply refuses to labour; and I think no power or punishment on earth would make him do so while this mood is on him. The only thing he cares to do is to sketch heads upon his slate or cell-floor. Has a great propensity to secrete pieces of knife-blade, or the like; and with these he makes a frequent show of attempting to cut his throat by scratching or picking at it. Does not seem to have any real suicidal intention. Attacked a warder at Woking. Had been in Bethlem in 1863, and more recently in Broadmoor Asylum. The following reply was made by Dr. Orange to enquiries made regarding him: “J. T., who was discharged from this asylum in May, 1870, was one of those persons concerning whose sanity a difference of opinion might easily exist. My own impression of him was, that with a sufficient motive—such, for instance, as the prospect of liberation—he could exercise sufficient control over his conduct, so as not to show any indication of insanity; but he was of irritable temper; and, with the prospect of a long sentence before him, he would probably not think it worth while to obey prison rules, and beginning in this course would, probably, soon become so reckless as to render it difficult to account for his conduct in any other way than upon the supposition of his being insane. He encouraged the idea that he had delusions as to his power of painting, but those delusions were doubtful, to say the least. The irritability and suspicion were, no doubt, genuine; and for a long time they amounted to insanity.”

These remarks are very pertinent, and carry with them a good description of the subjective side of the case. I am the more glad to be able to quote them, as they record an opinion of the highest value on such a subject. Such cases as these are by no means rare among those criminals who come under observation with regard to the state of their mind. They show the extreme difficulty of estimating the psychological value of acts committed by men of this stamp. "Punish them, at any rate, for their misbehaviour," some would say; but punishment is often useless, and even worse than useless. "Send them to an asylum," say others, "they are mad." They are sent, and what happens? *With* the changing scene, and not alone on account of it, the individual *turns himself* round, and is also changed; so much so that to retain him in an asylum as insane is felt to be nothing less than a premium upon crime. Hence is thrust upon us in our practical dealing with imprisoned criminals the necessity of recognising a special class as "weakminded," and requiring modified treatment *in prison*. As we shall see by-and-bye, the "weakmindedness" of this class appears in various forms; but I may here point out that in many cases, such as those of prisoners like F. L. and C. W., the mental weakness is determined or developed by the existence and operative influence of motives. And this fact would help to distinguish such weakmindedness from true insanity, as is borne out in the above suggestive expression of opinion by Dr. Orange.

While I write, an interesting "psychological study" is submitted to us by the Medical Officer of Pentonville Prison (Dr. Clarke) in his report on that establishment, just published in the Convict Prison Blue Book for the year 1873. The interest lies partly in relation to what I have been saying as to the frequent difficulty of forming an opinion regarding the mental source of the extravagant conduct in which prisoners indulge; and partly in the questions arising out of the fatal *dénouement* (self-strangulation) of the case. The history of the prisoner's behaviour I give in Dr. Clarke's words.

During a previous servitude in convict prisons he had incurred repeated reports for misconduct; he feigned insanity in a borough gaol; he affected to be palsied before the judge who tried him; and although he came here without a sign of disordered intellect, he soon commenced a course of malingering. The usual routine in some of those cases is to destroy books, clothing, or bedding, and the glass of the window. Refusal of food often follows, and then, if the abstinence

is persistent, hospital treatment becomes a necessity. This prisoner not only passed through those stages, but he added muteness to his other eccentricities, and so day after day passed, with this difference, as it was spent in hospitals, that he was under more frequent observation. Whether this restraint of close surveillance was intolerable, or whether he despaired of success in his imposture, is questionable, but after other symptoms of amendment, he assured me on the day before his death that he had resigned the attempt to feign insanity. All the ordinary precautions to frustrate suicide continued to be taken, and yet on the following night he succeeded in strangling himself by means of a bandage round his neck, tied to a looped sheet, in the bight of which he placed his feet, and by extension tightened the ligature. The act was unexampled for cunning and determination. Covered by his bedclothes, and refraining from any noise, he appeared to the officer on night duty, who passed and repassed all night in full view of him, to be sleeping naturally. A post-mortem examination of his brain revealed a healthy structure, and it may be said that the motive which impelled him to suicide was as mysterious as the physical signs of an unsound brain (if we presume it was so) were unrecognizable.

The physical possibility of accomplishing such an act without attracting attention is remarkable in itself. The investigation of the case from a psychological point of view is no simple one; but, beginning at the end, the principal positions to be taken up appear to be two. If, with Dr. Davey and others, we look upon the act of suicide as being *per se* a "positive and prominent symptom of madness," then the question falls; and we shall be able most likely to trace back a vein of insanity through the whole case—admitting a mixture of real and feigned insanity, for I think no one will doubt that imposture existed at some period. If, on the other hand, we hold that suicide is not necessarily the act of a madman, we are in a position to accept what appears to me to have been Dr. Clarke's opinion—at least up to the time the act was committed—viz., that the whole conduct was that of an impostor; to allow also that the self-destruction in this case was the result of a deliberate act of volition, and compatible with mental sanity. These are the two broad considerations involved, and to me the latter view seems quite as much in keeping with the whole outline of the case as the former. Carrying the inquiry still further, we shall be able, in a measure, to follow out the steps by which the mind of a criminal may be led up to this point. Feigning necessarily implies motive; and the feigned insanity of a prisoner would probably have for its motive the avoidance of the hard labour

and the other disagreeables of prison life. To effect his purpose, and to carry out his scheme of deception, look what the impostor will go through, voluntarily and by his own acts, in the way of refusing food, lying cold and naked, smearing himself with, and even eating, his own excrement, &c. Failing in his imposture, the source of his motive remains to him, namely, the labour and the disagreeables of imprisonment, together with the additional prospect of punishment for feigning insanity. With few "earthly ties," perhaps, and probably with no thought of a hereafter (or in spite of such thoughts), he prefers death to facing all this. The deliberate balance of motives and hopes falls in favour of death. The terrors of life have come to outstrip those of which death is the king.

I do no more than put this as a possible solution of the problem started by this strange history. I dare say some further points of interest would be suggested by fuller particulars; and the view taken by the coroner's jury, and their verdict, would also be interesting.

I have come across a case almost exactly parallel, which occurred in 1852 at Millbank prison, and which deserves to be recorded here. The late Dr. Baly, who was then Medical Superintendent, reports it in the following terms (Blue Book for 1852) :—

Joseph Kellachan, received into the prison from Glasgow, after four months' separate confinement in Glasgow prison, on the 24th of August, became restless and insubordinate about the end of September. On the 30th of that month he used threatening language towards his officer, and it being doubtful whether he was sane, he was removed to the infirmary. Later on he declared that his apparent insanity had been feigned, and that he had been instigated by another prisoner to continue the imposture, and he promised to behave well for the future. After a few days, however, he again presented the manner of an insane or idiotic person, but with such features as to produce in those who saw him a strong suspicion that he was still feigning madness. He was treated as a mad person, and was never left alone, except at times when he was mischievous. He was then placed in a separate cell, under the restraint of a strait waistcoat. On one of these occasions, when he had been left by the warder only half an hour, he contrived, though his hands were confined by the strait waistcoat, to attach the handkerchief which was around his neck to a hammock hook fixed in the wall, only three feet from the floor of the cell, and then sitting on the floor to destroy himself by strangulation. The termination of the case gives support to the opinion that the man was insane from the time of his first misconduct in the prison. But, all the cir-

cumstances considered, it is not improbable that his insanity was at first feigned, with the view of being sent to a lunatic asylum, and a vague hope of thus escaping altogether from his punishment, and that afterwards, finding his object not attained, he became reckless of life, and perhaps really insane.

*Statements and Opinions on Weakminded Criminals, by
Medical Officers of Prisons.*

The recorded experiences of the Medical Officers of Prisons are extremely valuable and useful in furthering our acquaintance with the weakminded class of criminals and their behaviour. They not only touch upon the subject from various points, but they show also certain features which are more or less common to the group. I may here explain that the details here given refer to the English Government Prisons, throughout which the weakminded are distributed in the following way. At each prison there are, very possibly, so many of the class who are looked upon as "queer" and defective, but who, with some modification of labour or discipline, go on for the most part quietly and contentedly. Others, again, are at Millbank, having been sent there from other prisons for prolonged observation as to the actual state of mind. If they are found to belong to the weakminded class they are transferred from Millbank to Woking or Parkhurst, where the great bulk of such convicts are under special care and treatment on mental grounds.

I have already recorded Dr. Baly's opinion regarding the effects of separate confinement on the minds of prisoners, and the risk there was of its producing disturbance and derangement, when continued for any length of time (say over twelve months) in all its intensity and rigour.

Dr. Campbell, of Woking Prison, thus records his experience (Report for 1870):—

Most of the prisoners sent here as imbeciles were reported to require supervision night and day, and they displayed the usual characteristics of the weakminded or imbecile class; such as excitability, eccentricity, impaired memory, vacancy in the expression, often marked peculiarity in the countenance, and formation of the head; and in some the ears are thickened and pendulous. Some are of low mental capacity, but the greater number are able to read and even write; they answer questions generally with some degree of hesitation, but in a rational manner, except in the worst cases attended with incoherency and loss of memory. Headache and restlessness at night are often complained of, but the sleeplessness is seldom imputed

to any particular cause. In three instances, the men laboured under the delusion that they were visited by people at night. With the sullen and irritable, abstinence from food is sometimes indulged in, not because it will prove injurious, but evidently with the view of gaining some object; and in some instances they have persisted to such an extent as to require the administration of remedies to counteract the consequent depression. The same class are also destructive as regards clothing, bedding, cell furniture, or indeed anything within reach, and their persistency in that line of conduct is often remarkable. They are also subject to sudden fits of excitement, when they have assaulted officers and their fellow-prisoners, without any assignable cause. When guilty of acts of violence, or in other ways misconducting themselves, they may talk rationally, and appear perfectly aware they have done wrong; still the power of controlling their vicious dispositions appears, to a great extent, wanting.

Mr. L. Bradley, the former Medical Officer of Pentonville, usually referred to these cases as cases of "Mental Irritability," under which, he says (Report for 1866) "are comprised various shades of disordered mental action, not amounting to insanity, but indicated by the presence of morbid depression, irritability, excitement, or feebleness of intellect, and occasionally accompanied by a suicidal tendency."

The following cases—which I give *in extenso* from Mr. Bradley's Report for 1857—serve well to show what an amount of dogged ill-nature and viciousness may be displayed by prison characters, and what a source of trouble and anxiety they are to those holding responsibility in connection with them:—

Convict W. W., 7082, aged 22, a carter, and a reputed thief, was convicted at the Bolton Sessions, October 6th, 1853, of larceny, after a previous conviction, and was sentenced to six years' penal servitude. It appeared from the caption papers that he was first confined in the New Bailey Prison, where he was "sullen, idle, insubordinate," and was whipped for refusing to work. Thence he was sent to Wakefield Prison, where his conduct, during an imprisonment of nine months, was "bad." Thence to Portland, where he was detained between eleven and twelve months, and where he obtained the following character from the governor: "Very bad; a most insubordinate and idle prisoner. I fear incorrigible." From Portland he was removed to Millbank. There he remained fifteen months, during which period his general conduct was "bad," and he was flogged for insubordination. From Millbank he was passed on to Portsmouth. He remained in the latter prison only twenty-six days; and was then, on account of refusal to work and continuous insubordination, removed to Pen-

tonville, to undergo a third period of probation, in separate confinement. During his imprisonment here his conduct was very similar to what it appears to have been in other prisons. He was generally idle and insubordinate. At times he was violent, smashing the windows, and *threatening the lives of the officers*. Although no delusion was manifested, yet, the silly laugh, the motiveless misconduct, and other features of the case, sufficiently indicated the existence of weakness or unsoundness of mind, and the necessity for special treatment. The prisoner was placed in the infirmary, and put to associated labour. Subsequently he was removed to Dartmoor, as an unfit subject for separate confinement. He was visited and examined by Dr. Winslow, who gave an opinion to the effect that the mental condition of the prisoner was such as to excite a grave suspicion as to his responsibility, although the symptoms were not sufficiently pronounced to justify a removal to a lunatic asylum.

Again—

R. D., 7570, received from Dartmoor, was removed to Millbank as unfit for the discipline of this prison. The prisoner, aged 24, had been a private in the Royal Marines. He was tried, in September, 1854, by a general court-martial, and sentenced to fourteen years' transportation for striking his sergeant. In pursuance of his sentence he was first sent to Maidstone Gaol. His conduct there was violent and disorderly, and after a detention of four months, he was pronounced to be mad, and was removed to Bethlem. He was confined as a lunatic there and at Fisherton, for about a year and three-quarters, and was then re-conveyed to Maidstone Gaol. He remained two months in Maidstone, was again pronounced to be mad, and was again placed in Bethlem Hospital. After a lapse of five weeks he was discharged thence as sane, and removed to Millbank, where he was detained about six weeks. His conduct during that period was "bad," and he is said to have feigned an attempt at suicide. He was then removed to Portland, where his conduct for two months was "very bad." He attempted suicide, and was sent to Dartmoor. At Dartmoor he used threatening language, violently assaulted the officers, and was then, after three months' detention, removed to Pentonville, to undergo a period of probation in separate confinement.

Such is a "bare outline" of the case, and it was not difficult to see from it that the convict was, "at all events, an unfit subject for the discipline of separate confinement." This is certainly a history of "transportation," not across the seas, but from gaol to asylum, from asylum to prison, from prison to prison.

"Such cases," Mr. Bradley goes on to say, "illustrate a peculiar class of prisoners received into Pentonville, and the convict prisons at

the present time (1857). Prisoners of the class referred to are characterised by inveterate idleness, obstinacy, and insubordination, by gross and apparently motiveless misconduct. They are, at intervals, violent, and smash everything within reach. They assault officers, disturb the prison by shouting, and set all order at defiance. Some are also intractable malingerers; others threaten or attempt suicide. Such men occupy, as it were, a neutral territory between crime and insanity, oscillating from one to the other, until at length in some cases incoherence or delusion becomes apparent, the mental equilibrium is perceived to be lost, and they fall obviously into the domain of insanity. In other cases the mental condition continues doubtful, and in the prisons they are as often recognised as "cracked" or crazy as they are in the lunatic asylums as criminals and impostors. On these the authorised prison punishments are found to be worse than useless, and the existing systems of discipline, whether 'separate' or associated, appear to be productive of little benefit. To deal effectually with them before actual insanity is established, a special and peculiar discipline is needed."

That there are forms of "mental irritability" without this violent and outrageous conduct is evidenced in the following remarks by Mr. Bradley in his report, 1858:—

In two cases the prisoners suffered from dyspepsia, and imagined that their illness was caused by deleterious substances clandestinely mixed by the officers with the food supplied to them. The third fancied he was in possession of an important secret connected with religious subjects, which he refused to disclose. The fourth asserted that he was made unhappy by being suspected and pointed out by the officers as guilty of vicious practices. Although it would appear from the above statement that delusions were observed in these cases, yet they were not sufficiently "fixed" or absurd to be regarded as *insane* delusions, but, nevertheless, were indications of a mental condition, which, under adverse circumstances, would probably have terminated in actual mental disease.

He notes the following cases (Report for 1862), which may be taken in illustration:—

P. S. became dull and depressed in spirits. He also refused his food, and behaved strangely. He was frequently found muttering and laughing to himself. Was treated in association, and with benefit.

J. W. appeared for a time to labour under morbid religious impressions. He fancied "chloroform" was mixed with his food. Under treatment in association this condition appeared to subside, and the prisoner was removed to public works.

1291, an ill-conducted convict, of low intellect, singed the hair off his head by means of his gaslight, threatened suicide, and was

depressed for some days. Under treatment he now appears to have recovered.

Dr. Roome, Medical Officer of the Invalid Prison at Parkhurst, summarises his experience in the following extract from his report for 1871 :—

The class denominated imbecile or weakminded will always be an anxiety and a care; 124 of these have been under our care during the year. All are not merely weak in mind, as the name would seem to indicate; many are as insane as those to be found in an ordinary asylum, and when their cases become more pronounced they are selected for ultimate removal to Broadmoor, for which asylum Parkhurst may be regarded as a feeder. A certain number have been thus selected during the past year, and more remain for transfer. The moral depravity exhibited by some of this class is, as may be supposed, greater than that which obtains in an ordinary asylum, and the acts of violence to which such men are impelled often, I am convinced, lead to an erroneous impression regarding their true mental condition, for which the fittest emotions to be called forth are probably pity and compassion rather than anger and disgust. But, taking them altogether, I think their conduct and general demeanour will bear favourable comparison with that of any similar body of men elsewhere. Many exhibit a congenitally defective state of mind not to be judged of by ordinary standards. Though undoubtedly responsible beings, their sense of right and wrong is altogether warped, and the intellect they bring to bear upon the question is sadly defective. I have observed that there is frequently a concurrent physical deficiency, the phenomena of both mind and body being abnormal. The difficulty of deciding what amount of responsibility to attach to the acts of such men forms one of the duties peculiar to the office of the medical man in charge, and can hardly be realised by an ordinary observer of the insane. Hence, when any crime of startling magnitude is brought to light, the profession is scandalised by the difference of opinion expressed in the witness-box by medical men of undoubted ability, and probably equal sagacity. Such criminals require a system of treatment peculiar to the class to which they belong, and their acts can be judged of only by those who have long made it their study.

I have to thank Mr. Gover, the Medical Officer of Millbank Prison, for the following valuable and suggestive thoughts on this strange class of criminal, which he kindly, and at short notice, wrote out for me :—

“The term ‘weakminded,’ as we use it in the convict service, is very comprehensive, and includes every variety and every degree of mental affection short of that which would

justify a certificate of insanity. It comprises, for example, many who are merely dull and slow; men who are dull of apprehension, and whose reasoning processes are carried on slowly and with apparent difficulty. Such men, however, *do* reason, and not only draw correct inferences, but act upon those inferences if time be given them. These are the men who irritate busy or impatient officers; and who, by reason of the keen sense of injustice by which they are distinguished, are in their turn irritated, and commit some offence for which they are reported. Such men may make good and steady farm labourers, but let them migrate to a town, and they stand no chance against their more nimble-minded competitors. Like 'unready' men generally, they are always at a disadvantage, and their fate must depend very much upon those into whose hands they fall. Their infirmity is such as to necessitate the exercise of patience on the part of those who would give them fair play; and considering the rarity of this virtue, it cannot be wondered at that many find their way into county gaols, and, finally, into convict prisons. When once in prison, it is well that they should be segregated from those who reach the standard of intelligence implied by a full compliance with discipline, and this can be most conveniently done by classing them with those to whom the term 'weakminded' more correctly applies. If to these dull and slow men be added the eccentric, the passionate, the obstinate, the lethargic, and those of depraved tastes and habits, the residuum of purely weakminded convicts will not be large. There is, doubtless, a simple debility of mind as there is of the body, and it is such as these, whose mental debility falls short of imbecility, who may be correctly described as 'weakminded.' Of the characteristics by which these men are distinguished there is nothing more noticeable than a condition of what (for want of a better term) I may designate as 'mental instability.' The weakminded do not continue in one stage; their moods vary from day to day, and although they can conduct themselves well and conform to the requirements of prison discipline if constantly looked after, and with good examples always before them, yet they show a decided tendency to relapse into the evil courses into which they have generally plunged at one time or other, and they almost inevitably do so relapse if left to themselves. Often, under the kindest management, they will break out, and, without motive, set officers and all at defiance, apparently from the impossibility of longer maintaining a restraint

which is alien to their nature. In prison they are a plague to those in whose charge they are placed, and out of prison they are a danger to themselves and a source of grief to their friends. It may be asked in what respect such men differ from imbeciles, and no doubt weakmindedness and imbecility do graduate imperceptibly one into the other; nevertheless, there is a well-marked difference, of which those who have had the practical management of the two classes are conscious, however difficult it may be to state that difference in precise language. Taking a type of each class, and comparing them together, I would say that the weakminded man is capable of entering into a simple argument; the imbecile is not. The imbecile can compare two objects together, but he cannot draw an inference; he cannot complete the syllogism. The weakminded man can do so; he can draw a correct inference from true premisses, but he cannot go far beyond. He cannot accomplish the complicated process of reasoning which is called 'foresight;' he is at the mercy of the impulses and impressions of the moment; weak in volition; often a slave to animal passions; and sometimes insubordinate through the sheer force of animal spirits which he cannot control. What is to be done with such a being? How comes he into existence? What is his position in society? What his mission in nature? To what extent is he responsible? These and other like questions cannot be answered within the limits of a few lines. But it may be remarked that the weakminded man is a necessary product of an imperfect stage of civilisation. A time will surely arrive when some limit will be put to the propagation of their kind by the half developed in mind and body; when overcrowding and its attendant evils will be things of the past; when wise sanitary legislation will have done its work, and a new generation will arise to whom the weakminded man will be a stranger. In the meantime he is in our midst; let us deal gently with his weaknesses; exercise pity and forbearance towards his caprices; and avoid undue severity when punishing him for those crimes into which he has been led, either by evil example or by the coercion of designing men who have taken advantage of his infirmity."

Having greatly extended our knowledge regarding the weakminded criminal by these valuable opinions and practical utterances on the part of experienced prison medical officers, and having, as it were, taken a general survey of the variety

of mental phenomena which characterises them, I now go on to see how far these phenomena may be reduced into order, and classified.

Forms of Weakmindedness.

I cannot help feeling that in proposing a classification of weakmindedness I may appear to some to be attempting a refinement which is but a process of psychological hair-splitting. But if they will bear with me for a little, I hope to be able to show them, first, that the arrangement in itself is "no new thing," but merely an adaptation (with some modification) of knowledge they already possess, and secondly, that some such arrangement is necessary in order to get anything like a clear view of those morbid psychological conditions of which I have been speaking, as more or less peculiar to criminals. Our psychological standpoint in this matter permits us a full view into the regions of insanity on the one side, without shutting us out from visual communication with the sphere of healthy and responsible mental action on the other.

The mind of man, taking its whole range, stretches by an infinity of the most intricate and complex gradations from what we are accustomed to look upon as a state of sanity and stability, down to an opposite extreme, where it may truly be said to become "conspicuous by its absence" (idiocy), or where its activity is unstable and unhealthy (insanity). For our present purpose, we apply the term weakmindedness to that part of the range which forms the link of connection, in the chain of downward transition between mental sanity and its opposite; and it so happens that among prisoners and criminals generally this connecting link assumes an importance which it can scarcely be said to have among other classes of individuals.

I have all along sought to keep prominently in view the unintellectual and impulsive character of a large proportion of criminals. If we extend those two characteristics, each in its own direction, until they come to give rise to behaviour so anomalous as to be incompatible with the requirements of surrounding conditions (*i.e.*, of prison life), we arrive at the simplest, as well as the most comprehensive, notion of the prevailing features of mind in the group of prisoners who come under the term "weakminded." If, again, we take into consideration the character of the thoughts (mostly referring to past life and present surroundings) by which

prisoners' minds are exercised, we shall be able to see how our general view of weakmindedness comes to include individuals whose minds are not necessarily ignorant or weak; accidental prisoners who may say to themselves with Calista in the old play—

Here's room for meditation ev'n to madness,
Till the mind burst with thinking.

In short, weakmindedness in prisoners is traceable for the most part either to original mental inferiority, or else to the pressure of such disturbances as the mental life of imprisoned criminals is necessarily invested with.

The weakness of mind may show itself as mere passive mental incompleteness in the presence of requirements to which it cannot come up, or it may consist of a morbid activity in some direction. Such an activity is a common feature, and the excitement and irritability that arise from it are vented in noisy and demonstrative conduct.

I have already pointed out that one advantage of the term "weakminded," as applied to the class of prisoners under consideration, lies in the fact that it does not commit us to too much in the direction of insanity; it does not indicate the presence of actual insanity. But it is a term also which allows of the possibility of individual cases possessing the features of insanity, or passing on to the graver stages of positive disease. Hence, a system of classification has to be adopted for it by which some distinction of weakmindedness from positive insanity may be maintained without breaking down the line of continuity by which they are connected. We have, in fact, to use terms which are applicable both to weakmindedness and insanity, and which are as capable of extension as weakmindedness is capable of extending to insanity.

Looking through the various classifications of insanity for a basis upon which to proceed, I find that the arrangement adopted in Germany, and followed out by Griesinger, is the one that recommends itself as the most suitable. Taking this as a foundation, we can attain simplicity, together with the avoidance of technical terms.

Speaking of the forms of mental disease, Griesinger thus expresses himself: *—"The analysis of observations leads to the conclusion that there are two grand groups or fundamental states of mental anomalies, which represent the two

* *Mental Diseases*, "Sydenham Society," Ed., p. 297.

most essential varieties of insanity. In the one, the insanity consists in the morbid production, governing, and persistence of *emotions* and *emotional states*, under the influence of which the whole mental life suffers according to their nature and form. In the other, the insanity consists in disorders of the intellect and will, which do *not* (any longer) proceed from a ruling emotional state, but exhibit, without profound emotional excitement, an *independent, tranquil, false mode of thought and of will* (usually with the predominant character of mental weakness).” This may also be taken as a text regarding weakmindedness, which is a degree of mental anomaly.

The two groups may be taken as corresponding to what Maudsley terms affective insanity and ideational insanity, and they are represented, although under less prominently marked forms, in weakmindedness. Although I base my arrangement on the German classification, I must state, to prevent misconception, that it is not my intention to show a parallelism or to draw a distinction between the forms of weakmindedness and those of insanity. It will be seen that in many cases the weakmindedness is simply a condition short of insanity—a diluted insanity as it were—that it is sometimes but an early or premonitory stage of insanity, and that sometimes it is neither more nor less than a partial insanity. My present purpose is to point out under what heads it seems to me the forms of weakmindedness may be classed, together with some of the leading features of the various forms, and to give some illustrative cases.

It will be seen that I have substituted, as more suitable to us, the term “simple mental weakness” for that of “states of mental weakness,” which, according to Griesinger, “continue as remnants and residues” of pre-existing forms of insanity, and which are therefore taken beyond our reach, in the general sense. Paralytic dementia is omitted as not concerning us.

The following is the classification which I would suggest for weakmindedness in criminals, and as a matter of convenience and reference I place side by side with it the German classification of insanity:—

CLASSIFICATION OF WEAKMINDEDNESS IN CRIMINALS.

I.—*Simple Mental Weakness.*

- 1.—Infirmity from inherited or congenital defect.
- 2.—Morbid infirmity coming on in adult life.
- 3.—Infirmity from decay in old age; senility.

II.—*States of Mental Depression.*

Melancholy, including hypochondriasis, home sickness, and self-innocence as to crime.

III.—*States of Mental Exaltation.*

1.—Emotional exaltation.

2.—Delusional exaltation.

GERMAN CLASSIFICATION OF INSANITY.

I.—*States of Depression.*

1. Hypochondria.

2. Melancholia.

II.—*States of Exaltation.*

1. Acute Mania.

2. Monomania.

III.—*States of Mental Weakness.*

1. Craziness or incoherence.

2. Dementia or fatuity.

3. Idiocy and Cretinism.

IV.—*Paralytic Dementia.*

General paralysis of the insane.

I. *Simple Mental Weakness.*—This is a negative form of mental manifestation. It implies a want of mind; a want of mental penetrability. The individual is intellectually dull or blunt; slow of comprehension; unteachable; thick-headed: and he is looked upon as “soft” or “simple.” It is for the most part a *passive* weakmindedness, and it is thus distinguished from the two other forms.

The dulness of intellect which is here found to stretch away into imbecility, is not a form of mental defectiveness peculiar to criminals; for our agricultural and mining districts abound with the same ignorant type of mind in their inhabitants. A certain number of dull-minded convicts there are who go through their penal servitude for all the world like mere automatic machines. They are wound up, as it were, by the judge in passing sentence, and they go on, from day to day, from prison to prison, from labour to labour, without resisting and without grumbling; and apparently with little more than an instinctive consciousness of their existence. But now and again the mental machinery of these men gets out of gear, and they tumble into difficulty. Very possibly some of their cleverer companions have made them dupes in some scheme which has come to light. As the

scapegoats, they get punished; their temper is ruffled, they become sulky and angry, and the want of judiciousness on the part of a warder will serve to increase this to insubordination and violence. Ultimately it may be that, with such apparent thickheadedness, there is no help but to take him under medical protection as weakminded.

Similarly, it is found, outside, that there are dull-minded creatures who go on harmlessly, from day to day, labouring at their farm or navy work, without any mental pre-occupation of a criminal nature. But although it cannot be said of them that they *seek* an occasion of doing wrong, or committing themselves criminally, yet in the face of temptation, and when such an occasion comes, or is thrown in their way, they are unable to resist it, and thereby become criminal. There is a something wanting in them which should enable them to restrain themselves under such circumstances. This "something" (which comprises a mixture of ready judgment, forethought, and healthy volition) is the common factor in this case of weakmindedness and criminality; it is this which here links together crime and mental weakness, which makes crime an expression of mental weakness; and which, if you will, makes crime, but assuredly *not all crime*, a "form of insanity." The same mental defectiveness which prevents the harmless labourer resisting a temptation to crime, oftentimes necessitates his being treated as "weakminded" when a prisoner. But the bearing of this case, where we *start with mental deficiency*, is altogether different from that of the great proportion of criminals who have been often convicted, and whose criminality shows itself as a positive propensity to evil doing. These last, not unintelligent, and quite capable of balancing motives, deliberately, and in spite of their consciousness of its risk, prefer crime to an honest livelihood, such as would fall to their share. Such men have said to me, "I am a thief, and I don't see that I'll ever be anything else; I never did like work much; of course there's risk, but I'll chance my luck again." Now, apart from the moral and social degradation (which the already thief does not feel), and the risk of a "lagging" or sentence to imprisonment (which he is willing to run), there is surely no madness in an idle-minded fellow preferring to live "like a gentleman" by helping himself directly from moneyed pockets, instead of sweating his life out with a pick and shovel at 14s. a week. I fail to see insanity in this, any more than I do in the forged bill of the

man of business, or in the "sanded" sugar and "spurious" tea of grocers who knowingly adulterate their goods.

But to return to simple mental weakness in prison life. A good many of those who belong to this class find occupation at ordinary prisons, but they cannot be entrusted in any position requiring sharpness or intelligence, or where risk and responsibility are involved. Some warders, knowing them, can manage to get work out of them, even when they are scarcely inclined to work. They are dull, insensitive, and terribly ignorant. I had to ask one of this class one day, for purposes of hospital location, whether he was a Protestant or a Roman Catholic. He stared vacantly, and I repeated the question, which at last seemed to strike his centres of intelligence; for, with something of pride in his tone, he replied, "I'm an Englishman!"

Almost the only active sign of a reasoning mental life which may be said to characterise some in this class, lies in their cunning, and in their attempts at deception. When they have some object in view which is somewhat out of the ordinary course, they will come and, by some round-about way of putting it, try to get what they want. Knowing that they are under special care, owing to their mental condition, they try sometimes to make capital out of it, and either "act the fool" by some extra token of simplicity, or else sham insanity by taking up some absurd or noisy line of conduct.

J. S., æt. 21, was decidedly "soft," and mentally weak. He came to prison described as a bad character, having been convicted and sentenced for fire-raising. He was at Woking in the weak-minded class, but there is no doubt he acted the fool occasionally. Once he proclaimed himself "Hemperor and King of Prussia and Germany," and required that court should be paid him; he himself performing some antics of a pompous nature in his cell. This at first was rather amusing, but he happened to carry it too far by giving some impertinence, for which he got a couple of days' bread and water. This rather reduced his imperial notions, and he resigned his dignity in disgust, very probably owing to the want of appreciation shown. But those who are simply mentally weak are apt to show temper when crossed, and, become, for a time, dogged, ill-natured, and even violent.

Simple weakness of mind may be shown to have a three-fold mode of origin, generally referable to one of three stages in life, and according to which it is subdivided:—

1. Infirmary from inherited or congenital defect.
2. Morbid infirmary coming on in adult life.
3. Infirmary from decay in old age. Senility.

1. *Infirmity from Inheritance or Congenital Defect.*

Here the mental weakness is simply the expression of an originally defective constitution of mind.

The signs of weakness are presented to us with the intellectual and moral powers of the individual at their best.

The vice-begotten son very possibly of depraved and debauched parents, what wonder if he comes into the world with a degenerate condition of nerve element. This, together with the small and mis-shapen head which is not unfrequently his further portion, renders impossible any considerable development of mental power. In addition, he gets an early experience of vicious habits and practices, which find in him a congenial soil for their growth; and he is not long before he becomes the inmate of a prison or reformatory.

On the other hand, the criminal who is simply mentally weak, may be the dull-minded progeny of honest country folks, who either from wantonness or malice fires his master's haystack, or else, forgetful of his human nature, seeks to gratify his lustful passion by means of a *bestly* intercourse.

Prisoners of this congenitally weak stamp carry their defects with them in their face; their gait and expression at once tell those who come in contact with them what they are or are not to expect from them. If, when standing their trial for burglary or petty larceny, some of these "incorrigibles" of the police courts were to be favoured with counsel, and if the issues were the same as in cases of murder, there is no doubt the plea of mental unsoundness would often be advanced and maintained with success. But as it is, the prisoner of this class has simply to be identified by some prison warder, or otherwise recognized as an "old hand;" a calculation is made of the present offence in relation to previous convictions, and the award is told off as so many "months with hard labour," or so many years' penal servitude with subsequent police supervision.

R. R., a boy of 16, with quite an idiotic cast of countenance, mental vacancy, and almost drivelling, was in the weakminded group at Woking. He was undergoing a sentence of 10 years for committing an unnatural offence. No one could look at this boy without being struck with his natural defects. He had never been in prison before.

G. P. was also mentally weak, full of scrofula, and with a wretched and stupid expression of face. He was only 18 years of age, and had already undergone three periods of imprisonment, being in this time for burglary. Does not seem capable of working out any scheme.

Notwithstanding his physical weakness, he fancies he is quite strong and could do almost any hard work. Would sometimes show temper and violence.

G. H., an unhealthy-looking subject, is at present in this (Portsmouth) prison. When quite a boy, he began a criminal career by stealing a pair of boots; he then got a month's imprisonment and five years reformatory for endeavouring to upset a railway train. Turns up again in 1870 as a rogue and vagabond; and after two or three short sentences he got seven years' penal servitude for burglary. He is dull in comprehension, with small head, sunken eyes, and a general want of expression; stolid, and looks as if he were always listening for something, but could never catch it. Goes on for the most part almost automatically, with occasional misconduct by refusing to labour, or by destroying his clothing.

W. H., aged 36, with several aliases, and repeated convictions against his name. A thief. Large round head; has nothing to say for himself. When asked his name, he always replies, "I answer to the name of Howard," in a thin, quiet voice. Is now tolerably well behaved, and evidently feeble-minded. For about three years he was constantly under report for disorderly conduct, but never noisy. His misconduct began by his refusing to labour, he then became disrespectful and insubordinate, and tore up his clothes, books, &c., then threatened warders, and committed an assault upon one, for which he was flogged. Among his reports is one for "drinking his urine out of his shoe and mixing it up with his bread." Again, "having excrement in his wash-hand basin;" "mixing up excrement, oatmeal and clay, and eating it for breakfast." From all this he ultimately settled down, and for the past 14 months has scarcely misconducted himself in any way.

Some of those whose general condition of mind is "simply weak," show from time to time signs of irritability, peevishness, and even of violence. This happens when the usual tenour of their disposition is disturbed by alterations which take place in their disposal and employment in the prison. They are sometimes quarrelsome with their fellows, but it usually happens that they are in the first instance teased. If they get reported for some offence, and punished, they will very possibly display irritability with some insubordination for a week or ten days, or more, and then settle down into their usual groove.

They are apt to become possessed of weak and childish fancies about their treatment, and even delusions may show themselves from time to time.

Mental weakness from congenital defect may be associated from the very outset with epileptic states.

2. *Morbid Infirmary of Mind coming on in Adults.*

Here the mental weakness is the more or less permanent resultant or residuum of continued indulgence in vicious or intemperate habits and practices, or else of positive and active disease. Some criminals have passed through one or more attacks of insanity; many of them have led what they call a "hard life," and a dissolute one; and what conditions are more likely to be followed by an impoverishment of the nervous and mental energies? Look what miserable wrecks a round of *delirium tremens* leaves behind it. It is only what we must expect, if the mechanism of thought and healthy mental action is submitted to such rough dealing.

Again, and this is a reflection which connects itself closely with prison life, what a terrible filtering away of mind is there among prisoners by the noxious practice of self-abuse. Although it is impossible to estimate the extent to which this pernicious and enervating vice is practised by prisoners, there is not the least doubt that it is common among them; and its consequences frequently to be traced in connection with nervous and mental disturbance and degeneracy. From the wretchedness and nervousness which are among its first effects, self-pollution comes in time to sap the processes of thought, and ultimately, in some cases, to produce a form of delusion in which, without any actual grounds beyond himself, the prisoner thinks and complains that he is pointed at by the officers of the prison, who say things about him, and are to bring charges against him for filthy practices. His guilty self-consciousness rises up against him in the form of a morbid fancy which he is unable to suppress. Secret masturbation undoubtedly operates as a *cause per se* of weakmindedness, as well as being a cause among other causes; and its practice is on the other hand sometimes—often, I should say—a *symptom* of the mental weakness, and then it takes place openly and shamelessly.

Simple mental weakness may, further, result from injuries about the head, or from inflammatory attacks in the same region. In one prisoner received at Woking, weakness of this sort remained after a sunstroke which he had at Chatham in 1868.

The worst feature of the mental weakness which comes on in adults under the circumstances which I have described is its tendency to advance into graver and more active forms of disturbance, and even into positive insanity.

A. W., æt. 36, burglar, with four previous convictions, became very troublesome, and was repeatedly punished. He became filthy in his habits, and quite indifferent to all around him; passed his urine and fæces in his clothes and bed wilfully, and used most disgusting language to anyone that came near; frequent self-abuse. A chronic case advancing into graver disease.

W. T., undergoing his tenth sentence, although only 25 years of age; was weakminded and eccentric, and would best be described as having a "bee in his bonnet." Would talk with a fair amount of intelligence on most subjects within his knowledge, but with a scornful and sinister expression in his face; he was full of suspicion that he was being made game of. Appeared high-minded, and as one not to be trifled with, but in reality quite harmless.

W. T., had been a commercial traveller, and appears to have been given to sexual excesses; was unfitted for prison discipline owing to simple infirmity of mind, being only about 33 years of age. Body moves in a nervous, "finniking" way when he speaks; appears hypersensitive, and his address and conversation are marked by an overweening politeness at almost every sentence; shallow-minded.

W. A., aged 20; doing ten years for rape; is of a low type of mind, with some amount of cunning. He is quarrelsome, idle, and frequently under report for disobedience of orders.

R J., 23, sentenced for manslaughter while under the influence of drink. Low and weak expression of countenance, but not gross. Quiet manner and very reserved; behaves well, and is at present amenable to discipline; but if he were thwarted and began to give trouble, his mental deficiencies would show themselves more strongly.

There can be no doubt that a little management on the part of officers keeps such men as this working on smoothly and with comparative comfort.

J. D. is another case something similar. He is an elderly man, who belongs to the rogue and vagabond class, although he looks quiet and respectful at present. Is quite harmless, talks rationally in general, and behaves well. But he has high and exalted notions, of the nature of a delusion, regarding religious and Scriptural matters; and thinks he is entrusted with a divine power to expound Holy Writ. He is not obtrusive with his fancies, but will talk for any length of time about them when once he starts.

3. Mental Infirmity from Decay in Old Age : Senility.

Cases of this description, as might be expected, are not frequent. There is usually some accompanying physical disease for which invaliding takes place, as rheumatism, paralysis, &c. They are mostly crotchety, garrulous, and lewd in their ideas, with dirty and careless habits; and not free from cunning.

J. D., about 60 years of age, convicted, and sentenced for an unnatural offence; was dirty in his habits, and very obstinate and perverse. Feigned a fit while speaking to me one day. I asked him in a half-bantering tone when he got up, if he could do another for me, and he went through the performance a second time, letting himself gently down on his knees, and rolling over on his back.

J. C., a low-minded old creature; was given to lewd practices. Very irritable, and ill-tempered, and revengeful. Had been convicted three times for arson, having set fire to farm stacking each time.

(To be continued.)

Necrophilism. By W. A. F. BROWNE, Esq., late Commissioner in Lunacy for Scotland.

(Read at the Quarterly Meeting of the Medico-Psychological Association, held at Glasgow, May 21st, 1874.)

The subject of cannibalism cannot be omitted from such an inquiry. The consideration of this revolting instinct and practice becomes imperative because there are grounds, derived both from history and psychology, for believing that cannibalism, either as a primitive or corrupted instinct, has at one time or other been universally prevalent, has characterised certain states or stages in the progress of every race. This proposition does not exclude the existence, either originally or in certain stages of progress, of purely vegetarian nations. We are so accustomed to regard modern communities in their civilised and mature condition, and in the same manner as the ancients fabled Minerva starting from the front of Jove, perfect, graceful, armed, that we forget that nations had beginnings, that their growth was from a mist or a myth which we cannot grasp, or that they emerged from barbarism so gross and degraded that we can scarcely realise its enormity. It would be a vain and futile task to establish by reference the proposition that a craving for human flesh, or, at all events, its use as food, preceded the habits and manners of civilised life, and we shall confine the allegation to our own progenitors as conveying a lesson at once to our pride and to our philosophy. Montalembert, after eloquently painting the striking and pleasing contrast between the aspect and social state of the west of Scotland, between 412 and 1867, perhaps the very spot in which these

words are now written, says "Dion, Strabonius, St. John Chrysostom, and St. Jerome have emulated each other in painting the horrible cruelty, the savage and brutal habits of those inhabitants of North Britain, who, successively known under the name of Caledonians, Scots, or Picts, were most probably nothing more than the descendants of the British tribes whom Rome had not been able to subdue. All agree in denouncing the incestuous intercourse of their domestic existence, and they have even been accused of cannibalism."*

Froude, quoting from Spencer and Sydney, states, "The rich pastures were burnt into a wilderness; through Kilkenny, Tipperary, and Cork a man might ride 20 or 30 miles nor ever find a house standing, and the miserable poor were brought to such wretchedness, that any strong heart would have rued the same. Out of every corner of the woods and glens they came creeping forth upon their hands, for their legs could not bear them, they looked like anatomes of death; they spoke like ghosts crying out of their graves; they did eat the dead carrions; happy when they could find them; yea they did eat one another soon after: *insomuch as the very carcasses they spared not to scrape out of their very graves*, and if they found a plot of water-cresses or shamrocks, there they flocked as to a feast for a time."† It is possible that from the influences of climate, soil, and even mental constitution, there may have existed aboriginal vegetarian savages, or, even that the possession of dogs as among the Esquimaux, as has been asserted by M. Toussant‡ may have rendered resort to the consumption of human flesh unnecessary; but, putting aside all speculation and inferential evidence, this practice, originating in one or other of the following incentives, has been traced in almost all known races.

I.—The carnivorous propensity may have been suggested by, or associated with, rude notions of human sacrifice.

II.—Anthropophagism, or the congeneric manifestation blood thirst, may have been connected with social and solemn rites, when the Lydians and Medians and Insular tribes cemented their conspiracies by drinking human blood.

III.—These horrible acts may have been the offspring of

* Montalembert's "Monks of the West," vol. iii., p. 21; Blackwood, London, 1867.

† Froude's "History of England," vol. iii, p. 257. Quoting Spencer's state of Ireland, with a description of Munster, by Sir. Henry Sidney, after a journey through it, 1566.

‡ Transactions of the Ethnological Society, vol iii, as noticed in "Saturday Review," April 15, 1865, p. 445.

revenge, or of feelings of triumph, as in the war feasts which followed victory among the North American Indians, instigated, moreover, by the hope that, in devouring the palpitating remains of their enemies, they might imbibe the courage, the strength, the success, by which they had been signalised; and as in the more recent quaffing of blood fresh from victims of the guillotine, or the greedy licking of the drops which fell from the instrument, by bands of unsexed and unhumanised women, in order to demonstrate their hatred of titles and tyrants.

IV.—The propensities may have been developed under the pressure of want, despair, and the delirium which accompanies these, for we read of mothers subsisting upon their children, in the Siege of Jerusalem; during the Plague in Italy, in 450; during the Siege of Paris; during the reign of le bon Henri Quatre. During the famine in France, in the eleventh century, the flesh-hunger seems to have gone hand-in-hand with murder, for we read “that human flesh was exposed for sale in the market-place of Tournus.” “The strong waylaid the weak, tore them in pieces, roasted them, and eat them. Children would be tempted into lonely places by the offer of an egg, or fruit, and then made away with.” “To such extremes did the madness of famine go, that the very beasts were safer than man. . . . A wretched man had built a hut in the forest of Maçon, near the Church of St. Jean de Castanedo, where he murdered, in the night time, those who besought his hospitality. The bones of his victims caught the eye of one of his guests, who managed to escape; and there were found in his hut forty-eight skulls of men, women, and children.”* Shipwrecks and starvation, in very modern times, have demonstrated that all the horror and repugnance, and moral antipathy, inspired by civilisation, and culture, and Christianity, to cannibalism give way before the first of our instincts—the craving for food—irrespective of its source.

V.—It appears as an appetite, or carnivorous preference for human flesh, naturally in certain barbarians, morbidly in chlorotic or gestating females, as exemplified in the wife, who, urged by the craving to eat her husband’s shoulder, killed him for this purpose, and then salted the body, in order to prolong or return to the gratification.†

* Michelet’s History of France, Book iv., p. 144

† Georget Dict. des Medicines.

VI.—It is affirmed to appear as a sign of love, reverence, kindness, as in the Papuans, who killed and eat their parents when aged or infirm.

VII. It appears as a liking or respect or veneration for the dead, their remains, their beholdings, their resting-place, their memory, and may be accepted as a healthy or insane attachment, according to the extent to which it is carried, and the circumstances and manner in which it is displayed. The green grave on the hill side or in the floor of the wigwam, or the deep pit in the bed of the river, may as fairly be regarded as proofs of the former as the enormous marble piles in Hindostan, which it required uncounted wealth, years, and even generations of men to erect, the Pyramids of the Desert, or the mounds—almost mountains—of earth piled over the dust of the red children of the Far West. Incremation is in the interest of the living. Inhumation and many other modes of sepulture, the preservation of reliques, even of locks of hair, are all indications of unwillingness to part altogether from what has been loved, what has been part of ourselves, of our physical and mental entirety. It is not our province to enter upon the question whether such processes do not prove or shadow forth a belief in resuscitation, and that there is something precious in what has been animated dust; but the most expressive attempt to preserve the body in life-like form and lineaments is witnessed in the various modes of mummification which have been resorted to, and which have, so far, triumphed over time and put history to the blush. Such devices are protests against death and decay, and cravings after immortality. In Egypt, where these struggles against the inevitable doom of change were carried to the greatest extent and degree of perfection, the body of the deceased was first cleared or purified from all that was disagreeable or destructible, then filled and surrounded by spices and medicaments, supposed to be antiseptic, then involved in linen bandages, so as to exclude the air, but not materially to alter the form or features, nor even to conceal the ornaments, armour, dress, which had characterised the owner, and then deposited in the painted and ornamented case or coffin so familiar to the visitors of our museums.* But this was not all. The hair was left, artificial eyes of enamel sometimes introduced, the cheeks, nails, and various parts of the

* Pettigrew's "History of Egyptian Mummies." *Passim*.

body covered with gold leaf or gold plates, and various other attempts to beautify and adorn were resorted to. The remains were not then consigned to their final resting place, in cave or mummy-pit, but were retained for various—sometimes long—periods in the chambers or houses of former friends or relatives, sometimes formed a companion in their feasts, and constituted a good, or chattel, in their bargains and legal processes. It is singular that this highly civilised people should have preferred the sad spectacle of the simulacrum of what they had lost, to what their knowledge of painting and sculpture might have supplied in anticipation of what these arts have done for us, in clothing our homes with the unrepulsive and speaking representations of those who won such a distinction during ages past. It would be vain and out of place even to epitomise the various means of embalming, exsiccation, fossilisation adopted in Burmah, Peru, the Canary Isles ; and even now, where certain tribes of North American Indians allow the soft parts of their dead to waste or wither, and then carry the bones, or whatever remains, from camp to camp, in the endeavour to conserve, and have ever beside them some material part of the departed ; and it would be equally vain to discuss the theological or metaphysical opinions which may have prompted or mingled with the ordinary feelings of attachment and veneration, or the import of the ceremonials with which these practices were associated. Suffice it to say, that ample evidence exists that such feelings and wishes are catholic, and remain until the present day. We do not allude to the success of chemical art in postponing the decay incident to animal tissues, or to the Chamber of Horrors, in Paris, where you are introduced amid large groups of figures, with the aspect and dress of living beings, intended to illustrate this success ; nor to the instances of modern embalming afforded during the late American War, when the bodies of those slain in battle were preserved, placed in coffins with glazed lids, and sent to those by whom they might be identified ; but to the much more commonplace veneration paid to reliques of the good and great ; to the piles of skulls and bones of the unknown and unhonoured dead, which may be seen in the village churchyards in North Italy ; to the sacredness and affection with which we regard the spot where even the rude forefathers of the hamlet sleep ; and to the mementoes cherished in every household of those who have passed away, as proofs of what may be styled a healthy necrophilism.

In minds apparently otherwise sane, an exaggeration of the sentiment of liking for the dead, even during or after decomposition has been witnessed: "Juana, Queen of Navarre, kept her husband, Philip's, body by her for a twelvemonth. She imagined he was dosing, and would soon awake. She paid him compliments and made her servants treat him as a king."* There has come to my knowledge a notorious case of a landed proprietor, who, although on bad terms with his wife while alive, carried her body with him through India, scandalising the natives, and outraging the feelings of all, by placing the coffin under his bed. When we enter upon the debateable land which connects eccentricity with derangement, various grotesque modifications of this sentiment may be encountered. Consorting or living with the dead has been observed as a characteristic of melancholia. Individuals have inhabited graveyards, preferring the proximity and association of corpses with which they had no tie, to the cheerfulness and comfort of home. While in the Western Isles, some years ago, we examined two females, both bearing the same name, but in no degree related, who both laboured under a mild melancholia, manifesting this predilection as the most prominent symptom of their unhealth. They frequented their respective parochial graveyards, scaring the scattered and superstitious population around, who at first conceived that they must be the ghosts of the departed. One lay upon the earth beneath a flat stone, supported on short pillars, which marked the place of interment of clansmen, or, at least, namesakes of her own. The habits of the other were not so well known; but she was observed to haunt the uninclosed cemetery, to sit upon particular mounds, and so forth. Repeated efforts and even force were required to interfere with these midnight wanderings in each case.

In cases where the motives are altogether obscure, or where alienation is suspected, chiefly from the revolting character and inexplicability of the acts, a further advance in the same direction has been observed. The abodes of the dead have been visited, violated; the exhumed corpses, or parts of them, have been kissed, caressed, or appropriated, and carried to the homes of the ravisher, although belonging to total strangers; or, as in the instance of Sergeant Bertrand, who, leaving his barracks during the night, excavated recently-made graves, having no other instrument than his short

* Hepworth Dixon's "Two Queens." Vol. ii., page 274

sword, and then touched, tore, or cut the bodies reached with the weapon mentioned.

The next step in this downward progress is, where this liking is developed into the ferocious appetite, or longing, for human flesh, but under circumstances where little or no doubt can be entertained that it is a symptom or complication of different forms of melancholia, or impulsive insanity. I was much struck, when frequenting the Parisian asylums as a student, with the numbers of anæmic, dejected females, who obtruded upon me the piteous confession that they had eaten human flesh, devoured corpses, that they were vampires, &c. Having met with no distinct example of this delusion in our own country, I very recently corresponded with the medical superintendents of six large asylums, in order to ascertain their experience upon this subject. One and all replied that they had not, in many thousand patients, observed this manifestation; but that they have met with many individuals who firmly believed that the soup, meat, &c., served up to them consisted of human remains, and recoiled from such repulsive fare. This horrible suspicion occasionally leads to the refusal of food; and, many years ago, a lady under my charge, under the impression that there was what she called a gigantic murder machine under the foundations of the asylum, which crushed and converted her companions into minced-meat, abstained, and was compulsorily alimented for two years and eleven months. Within a few days I have heard of a homicidal maniac, so dangerous as to require the presence of two attendants, who cries out incessantly for blood, flesh,—that he will tear out and roast the heart, liver, &c., of his guardians; and, it is suspected, might carry his threats into execution did an opportunity present itself. A Glasgow newspaper, October, 1874, under the heading “Act of Cannibalism,” narrates that A. B., sane, sober and without motive or provocation, assaulted a cousin with brutal violence, bit off the lower part of his ear and part of his lip, otherwise biting and worrying him, so that a large quantity of blood was lost, smearing the offender’s mouth when apprehended. Was this impulsive blood thirst? Brierre de Boismont, in his account* of the forms of insanity occurring after the Revolution of 1848, mentions the case of a wounded patient who craved and cried for “the flesh of a National Guard, soaked in the blood of a Guard Mobile.” What certain

* L’Union Médicale.

classes of lunatics harbour as a delusion, or have perpetrated in fancy, others actually carry into effect. Necrophagism generally occurs in such forms of insanity as to render it difficult to trace the propensity to a definite origin, or to unravel the feelings and objects with which it is associated. It has been referred to mere savage instinct, to morbid hunger, and to those tastes and tendencies towards inedible, disgusting, even deleterious substances which characterise certain unhealthy states of the system.* None of these solutions, however, are applicable to many of the examples on record. The explanations may include the examples given by Prochaska of the woman of Milan, who tempted children into her house, killed them, and fed upon them at leisure; and of the man who killed in order to satisfy his craving. Similar occurrences are recorded during the epidemics of lycanthropia in the middle ages,† but they scarcely embrace the drinking of the blood taken in venesection, the sucking of the bodies of the deceased observed in the hospitals of Versailles, the sudden parricides, and the extraction and roasting of the heart of the victims—in one case by a loving daughter and in another by a simple-minded son; or the connate necrophagism said to have appeared in many members of a Scottish family by Legrande du Saulle, who, however, gives no reference; unless we make a wider generalisation, and suppose such horrors coincident not merely with exaggerated and perverted instincts, but with the abrogation of reason, conscience, and will.‡ We have alluded to an approximation to what may be designated blood thirst, but more distinct and appalling illustrations are accessible. 1. A girl of 14, belonging to the Puy de Drôme, who is described as having displayed on all occasions an avidity for human blood, and for sucking recently inflicted wounds. 2. In the review of “Hilton’s Brigandage in South Italy.”§ In early youth Gaetano Mammone had shown the tastes of a cannibal. He would hang about butcher’s stalls in Sora, his native town, waiting an opportunity to put his mouth to the gashed throats of animals. In after life, this man, who subsequently retired on a pension of 3000 ducats, assigned to him by Ferdinand, was accustomed, as a regular habit, to drain with his own lips the blood of his unlucky captives.

* “Chambers’ Cyclopædia” Art. Necrophilism, Morbid Appetites, &c.

† “De La Folie, Calmeil” Paris, 1847, p. 342.

‡ *Essai sur l’Anthropophagie* par M. le Dr. Legrande du Saulle. “*Annales Medico-Psychologiques*,” 3rd Series, t. viii., p. 472. July, 1862.

§ “Saturday Review,” 21st January, 1865.

3. A sombre, sullen man, supposed to have been previously in confinement for some criminal act, leaves his home abruptly, after taking therefrom a sum of money, wanders to some distance into woods and wild country skirting vineyards, seeks for and secretes himself in a cave or deep fissure in the rocks, where he subsists for some days upon cherries, pears, and grain, taken from the adjoining fields and orchards. In-stigated or "consumed" by disease, or unholy and morbid desires, he one day saw a girl, æt. 12, seated by the side of a vineyard, stealthily approached her, threw his handkerchief round her neck, dragged her on his back, ran for some distance till exhausted; he then threw his burden upon the ground, but not until the girl was dead. He then quenched his thirst by drinking the blood of his victim, then dragged the body into the hole where he had found shelter, and then, or previously, inflicted upon it deep gashes with a knife in his possession, laying open the different cavities, and had, according to a medical witness, devoured a part of their contents. He, subsequently, partially interred the corpse under the floor of the cave, lived beside it for some time, but subsequently went into the adjoining forest, where he was arrested. He was undoubtedly insane.*

It would be rash to stigmatise the partiality for game flavours, underdone meat, tainted and almost putrid delicacies prevalent among luxurious classes as proof of mental or even gustatory decrepitude, but it seems to form a link between our civilisation and the habits of certain of the degenerate and outcast tribes of Hindostan, who prefer and live upon carrion, and keep all animal flesh until it becomes so. Similar corruptions have been noticed where cannibalism was engrafted upon aberration. Berthollet describes a man who not only ate human flesh, but decaying human offal of the most disgusting kind; and the case of an idiot boy is before me, who, being left alone for some days with the remains of his mother, devoured a portion of the shoulder. But the most striking instance which has become known to me has been supplied by the Inspector of Poor of a Highland parish where the events occurred. The case shows not merely the perversion under discussion, but that many motives, revenge among others, lead to the act of tasting human flesh. The Goths, a thousand years ago,

* "Causes Célèbres." Tome vii., livre, 117. Paris. Hammond's *Insanity in its Relations to Crime, passim*.

carried at their saddles—as the North American Indians of the present day carry at their girdles—the scalps of their enemies killed in battle. About forty years ago a man and his wife lived close to a Highland lake. The former disappeared, and it was suspected was murdered, and thrown into the lake by the latter. Their eldest son, believing in the guilt of his mother, became insane, and expressed great antipathy and loathing towards her. This woman subsequently died, and was interred in the parish churchyard. The maniac wrote to the proprietor demanding that he should be allowed to dig up the body of the murderess. Two or three years passed, when the poor lad was detected in the act of carrying his horrible design into execution. He had dragged the body from the grave, placed the skull upon the low wall around the yard, had scattered the brains around, was tearing her flesh and hair with his teeth, and was only made to desist on a gong being brought and sounded. He escaped into the woods, subsisting upon frogs, &c., and I have been informed, upon less reliable authority, that he carried with him a portion of the remains of his parent, which he from time to time devoured. He subsequently disappeared from his native glen, but is believed to have recovered, and to have worked as a joiner in another part of Scotland.

I have advisedly omitted the co-relative topics of the worship of ancestors, Vampirism, Fetichism, &c., as only indirectly connected with this inquiry.

I am not prepared to enter upon a philosophical generalisation of the various and rather heterogeneous materials here gathered together. The most summary, and, perhaps, the most popular mode of disposing of the questions involved, would be to refer necrophilism to primary and pre-Adamite instinct; and, disregarding all our knowledge of the laws of the hereditary transmission of mental qualities and of the etiology of mental diseases, to throw all the blame of these monstrous aberrations upon the anthropoid apes. I adopt the bolder position that such aberrations owe their origin to that state of privation, degradation, or degeneration, as the case may be, from which all races have sprung, and to which, were the inhibitive influences of religion, education, and civilisation withdrawn, all races would inevitably return.

The Hallucinations of Mahomet and Others. By WILLIAM W. IRELAND, M.D. Edin., Medical Superintendent of the Scottish National Institution for the Education of Imbecile Children, Larbert, Stirlingshire.

(Read to a Branch Meeting of the Medico-Psychological Association at Edinburgh, 26th November, 1874.)

To one who does not admit the divine mission of Mahomet it is very difficult to explain the pretensions of that remarkable man, and at the same time to uphold his sincerity. There have undoubtedly been instances where mere politicians have resorted to religious impostures as temporary expedients to advance their ends; for example, the woman whom Pisis-tratus got dressed up in the traditional costume of Pallas, and who conducted him back to Athens from exile, or the milk-white hind which followed Sertorius in Spain, and by means of which he was reputed to hold converse with the Gods. But a contrivance of this kind is a very different thing from the foundation of a religion which now numbers about a hundred and forty millions of votaries, and which possesses to this day a very singular power over the minds of its followers. By the persistent claim of being a messenger from God, after a struggle of twenty-one years Mahomet made himself master of the greater part of Arabia, and roused a mighty religious movement which continued after his death. In a few years more a number of wandering tribes, who had previously no more cohesion than the sands of their deserts, had run a mighty career of conquest, which bore them to the banks of the Loire and of the Oxus. It is generally admitted that men cannot excite in others feelings which are wanting in their own breasts. A man without honesty and destitute of religious faith could no more found a religious system like that of Islam than a man without an ear for music could compose an opera. The old notion that Mahomet was a mere impostor appears so difficult of belief that no one of any recognised skill in historical inquiry now upholds it. But it has always been a great difficulty to explain how Mahomet could in good faith say that he had seen the angel Gabriel, and heard voices from heaven calling him the Messenger of God, and revealing chapter after chapter of the Koran. It had long seemed to me that the question was beyond human solution, and that it might have been a very difficult one, even had the inquirer

lived in Mecca or Medina during the time of Mahomet's mission.

It has been several times suggested that Mahomet was subject to some nervous disease accompanied by hallucinations, and if this could be proved it might help to solve a very interesting historical problem. A theory of this kind has been advanced, and worked out in some detail by Sprenger in his life of Mahomet;* and this learned writer, by printing many of the traditions on which his narrative was founded, allows us, to a certain extent, to exercise our own judgment in the matter. In preparing this paper Sprenger is our principal authority; and when we take a statement from another writer the reference will be given. It is necessary to remember that though the text of the Koran is not disputed by Arabic scholars, the traditions which have come down to us are often very doubtful and full of corruptions and legends. Even Mussulmans are not expected to receive them without criticism; and it is likely that the mythical theory could be applied to many of them.

When Mahomet received his first revelation he was a man of forty-two years of age. He had lost his father in infancy and his mother in childhood, had followed the calling of a travelling merchant, and had been raised to a good position in Mecca by his marriage with a wealthy widow whom he had always treated with the greatest affection, although she was fifteen years older than himself; nor did he ever take another wife as long as she lived.

There are several traditions about Mahomet's first revelation; the following, given by Sprenger, is one of the fullest in detail:—

The revelations of the Prophet began with visions in his sleep as bright as the dawn of the morning. Then a love of solitude came upon him. He used to live alone in a cave of the mountain Hira, where he spent several days and nights together in prayers and devotional exercises, and when he returned to his family it was but to get provisions. He came home then to Kadija, and fetched food for a certain number of days. This lasted until suddenly the truth came to him when he was in the cave of Hira. The angel came to him, and said, "Read." He tells, I answered, "I will never read." He seized on me, and pressed me till my strength went away. Then he loosed me, and said, "Read." I answered, "I will never read."

* Das Leben und die Lehre des Mohammed nach bisher grössentheils unbenutzten Quellen bearbeitet von A. Sprenger. Berlin. 1861.

This was repeated twice with the same answer. After pressing him the third time, the angel said—

Read, in the name of thy Lord who has created you. He has created men from blood Read; the Lord is the greatest who has taught men. He has taught man by writing what he did not know.

The prophet returned home trembling, and said to Kadija, "Wrap me up." She covered him up until his agitation was past; then he said, "Oh, Kadija; what has happened to me?" and he told her the story, adding, "I fear for myself." Kadija answered, "Surely not. Be of good courage. Allah will never make you miserable; for by Allah you are faithful to your relations. You speak the truth; you assist the needy; you are active in your calling; you are hospitable to strangers, and help people who have fallen into undeserved misfortune." Then Kadija went to her relation Waraka. "This was a man who had become a Christian in the time of heathendom, could write in Arabic, and had copied as much of the Gospel as it pleased God." He was very old and had become blind. Kadija spoke, "Oh, uncle, hear what thy relation has to tell thee." Waraka said, "Tell what you have seen;" and Waraka said, "This is the spirit which God hath sent upon Moses. Oh, that I were young! Oh, that I should be in life when thy people persecute you!" "What!" broke in the prophet, "will they persecute me?" "Yes," said Waraka; "never has a man brought what you bring without having enemies."

According to another tradition on this first occasion, wherever the prophet turned his gaze, he always saw the same figure; but another account simply says that he heard a voice crying, "Oh Mohammed!" and looking round, and seeing no one, he hastened to his wife and told her of it, saying he feared that he was deranged or enchanted.

Another tradition tells that when

Mahomet was walking in the defiles and valleys about Mecca, every stone and tree greeted him with the words, "Hail to thee, oh, messenger of God." He looked round to the right and to the left, and discovered nothing but trees and stones. The prophet heard these cries as long as it pleased God that he should be in this condition; then the angel Gabriel appeared, and announced to him the message of God in the mountain Hira, in the month of the Ramadan.

In the Koran his interviews with Gabriel are rather alluded to than described, so we are obliged to depend upon traditions

which are not always authentic. According to some of these accounts, after the first interview with the angel, there was a very long silence, and Mahomet was so much troubled in mind that he went sometimes to Mount Thabyr, and sometimes to Mount Hira, with the thought of throwing himself over a precipice. On Mount Hira he heard a voice from Heaven.

He stood still, for he felt faint on account of the voice, and he turned his face upwards, and behold Gabriel sat with crossed legs upon a throne between heaven and earth and cried out, "Oh, Mohammed, thou art in truth the messenger of God, and I am Gabriel." The prophet then turned back. God had gladdened his heart and filled it with courage. Then followed revelation upon revelation.

According to another tradition, when questioned upon the manner of his inspiration, Mahomet replied*—

Inspiration descendeth upon me in one of two ways. Sometimes Gabriel cometh and communicateth the Revelation unto me, as one man unto another, and this is easy; at other times it affecteth me like the ringing of a bell, penetrating my very heart, and rending me as it were in pieces; and this it is which grievously afflicteth me.

In the later period of life Mahomet referred his grey hairs to the withering effect produced upon him by the terrific Suras, or passages of the Koran. Ayescha, his favourite wife, said, "I observed the prophet when he got a revelation on a very cold day, and when it was over the drops of sweat stood upon his forehead." Othman was speaking to him one day, when he remarked that his eyes were suddenly turned towards Heaven and then to the right. His head moved as if he were speaking; after some time he looked again towards Heaven, and then to the left, and then to Othman. His face was covered with sweat. Othman asked him what ailed him, when he repeated a verse of the Koran which had just been revealed to him.

There is another tradition that a Bedouin had a strong desire to see the prophet when a revelation came on. Mahomet was lying under a cloth which had been stretched out to shade him from the sun, with Omar and some other followers. Omar allowed the man to put his head under the awning, and he saw that the prophet was red in the face, and seemed unconscious. After awhile he came to himself and gave the Bedouin the advice of which he came in quest. There are

* The "Life of Mahomet," by Wm. Muir, Esq., Vol. ii., p. 378. London, 1858.

other traditions which might favour the idea that he was subject to epileptic fits; for example, he made a sound like that of a young camel. On another occasion he fell upon Zayd's lap with such a force that he feared his leg was broken. Sprenger thinks this attack was so *à propos* that it might have been feigned. Another tradition says that when the prophet had a revelation he fell into a coma as if he were drunk.

It is said that his face turned white, and that he moved his lips as if he were speaking.

One can scarcely wonder at the prophet being represented in a trance, as this was the accredited form in which a divine revelation was communicated. It is a question of great interest, as Sir William Muir remarks, whether the ecstatic periods of Mahomet were simply reveries of profound meditation, or swoons connected with a morbid sensibility of the mental or physical constitution.

Gibbon tells us that it was an absurd calumny of the Greeks that Mahomet was subject to epilepsy.

If we are to believe that Mahomet fell into some species of trance, accompanied by hallucinations, this appears different from ordinary epilepsy. An epileptic entirely loses consciousness, and when it returns he is generally in a confused and sleepy state, quite different from that of Mahomet, who had always his rhymed verse of the Koran ready after having had a revelation. Epilepsy, especially when the fits are frequent, is a disease most destructive to mental force and soundness of thought, and must be fatal to an active and difficult career; yet Mahomet had to encounter much opposition, both before the flight to Medina and after it. He showed great activity in war; he led twelve military expeditions, underwent much exposure, and was many times in extreme danger. Setting aside his claims to divine communications, there is no proof that he was in the least deranged. He evidently possessed an intellect of the highest order for managing and controlling affairs, and was skilful both in conducting war and treating with his adversaries. It is common in works about insanity to repeat the statement that Julius Cæsar and Napoleon Bonaparte were both epileptics. What we know about Cæsar seems to rest on the authority of Suetonius,* who says that Cæsar had good health, except that

* *Valetudine prospera, nisi quod tempore extremo repente animo linqui atque etiam per somnium exterreri solebat. Comitiali quoque morbo bis inter res agendas correptus est.*—Suetonius xii Cæsares, cap. 45.

towards the end of his life he would suddenly swoon away, and was frequently terrified in his sleep, and that he was twice seized with epilepsy while transacting business. Plutarch mentions a report that Cæsar had a fit during the time the battle of Thapsus was fought, but this was one of his last battles. It is likely that these fits came on towards the close of his life, for a man subject to repeated attacks of epilepsy could never have run the great career that Cæsar did, though it is possible that had the daggers of Brutus and Cassius not abruptly ended his life, the splendid intellect of Julius might have sunk into insanity, perhaps after a period of extravagance and furious tyranny like that of his successor, Caligula, who, from the description of Suetonius, was an epileptic lunatic.

As for Napoleon, the testimony of Bourrienne seems to me decisive—

It has been everywhere said that he was subject to epilepsy; but during more than eleven years that I was constantly with him, I have never seen in him any symptoms in the least degree indicative of that malady.

But to return to the Arabian prophet.

There is a tradition that Akra b. Habis visited the prophet just at the time he was getting cupped on the back of the head, and said to him, "Oh, son of Abu Habscha! why do you allow yourself to be cupped in the middle of the head?" Mahomet answered, "It is a remedy against headache, toothache, drowsiness, leprosy," and Layth adds, "I believe he said also against delusions."

Sprenger tells us that Mahomet used cups for a great variety of complaints. They were made of horn, and probably resembled those described by Celsus, and were brought into use even on the occasion of eating the poisoned mutton which the Jewish woman at Chaibar gave him.

Weighing all the testimony that remains to us together, it seems likely that Mahomet, at the commencement of his mission, was subject to hallucinations of hearing and sight which, taking the tone of his deeply religious feelings, and his dislike to the idolatry and polytheism of the people of Mecca, were interpreted by him as messages from God. In this belief he was prompted and encouraged by his wife, Kadija, and some of his relations, and was thus induced to commence his remarkable course of apostleship. How far these hallucinations accompanied the remaining twenty-one

years of his life it would be difficult to say. There are some reasons to believe that they became less frequent after the flight to Medina; but it is evident that after his claim to divine inspiration was fairly settled by himself and admitted by others, he would be disposed to regard his dreams and omens, and the impulses of his own thoughts and feelings, as so many signs from Allah, whose messenger he believed himself to be.

Behind all these delusions, there was a keen and powerful intellect, well acquainted with the passions and motives which most act upon men, and gifted with a wonderful power of forcible speech; and if Mahomet is to be called insane, his insanity was of a very rare type. It is one thing to account for a succession of hallucinations, occurring without order or purpose in a man whose conduct shows his brain to be deranged, and quite another to account for a series of visions or hallucinations, each going to support a revelation of a systematic character. The hallucinations of Mahomet took a definite shape and sequence, adapting themselves to difficulties, opposition, and criticism, in the end working out a religion which, from its rapid extension and durability, must have been well adapted to the races who have made it their own. It seemed as if there were some one behind, directing the hallucinations or delusions of Mahomet, or arranging them so that they should produce a given effect. Sir William Muir suggests that the prophet yielded to the suggestions of the devil. Sprenger, who laughs at his fellow-biographer, remarking that, if people still believe in a personal devil, there is no reason why they should not give him something to do—nevertheless is evidently much at a loss for a personage of this kind to help out his theory; for though he affirms that Mahomet was subject to hallucinations and what he calls hysterical attacks, he abandons the theory again and again to accuse the prophet of deceit and trickery, and pious and political frauds.

It is admitted that a man can habitually have hallucinations without being insane; the well-known case of Nicolai is one to the point. It is often said that, if the man recognises the hallucination to be something unreal, he may be sane; on the other hand, if he believe and act upon the hallucination, that he is insane. Much, however, must depend upon what a man's preconceived opinions are. One brought up from his childhood to believe in ghosts will take any figure he sees in the dark for a spectre, if it appear at an

hour or in a situation when and where no man could be expected to be. In the same way, a man who believes that angels are in the habit of appearing to men, would not take up the idea that a similar apparition to himself was a mere hallucination. Mahomet had heard of many apparitions of angels to the old Hebrew prophets, he believed in djins, and bad and good spirits; his mind had outgrown the polytheism and idolatry of Mecca; he was deeply religious, and felt himself in possession of truths which raised him above the stupid idolatry of his fellow-citizens. He knew nothing about the physiology of the brain, but he believed that a man could be deceived by bad spirits, and, doubtful whether this might not be his own hap, he took the opinion of those whom he loved and trusted most. Viewed in this way, I cannot call him insane.

In ancient times, and amongst half-civilized nations, things were done in the name of religion which none but men of the weakest mental structure would now do; but the rule we would apply to the one time will not hold good for the other.

If to claim to be an inspired prophet be a sufficient proof of insanity, then of course Mahomet was insane; but if this be not assumed, on what grounds can such an imputation be made good against the son of Abdallah? If we had an account of him written by Abu Sophian, or some of his other opponents, no doubt the unfavourable points of his character would be brought out; but, as far as the accounts of his friends go, he appears to have possessed a great deal of *savoir faire*. His manner of speaking and acting impressed even his enemies very favourably. The Koran is his undoubted work, and though it seems to me, through a translation, an irregular and often tiresome production, it certainly affords no proof of insanity. A claim is persistently put forward by the Mussulman, originally stated by Mahomet himself, that the composition of the Koran bears in itself the impress of divine wisdom. Truly, if the Iliad and the Odyssey were written without divine inspiration, Mahomet had need of no such help in composing the Koran!

According to the theory of Dr. Luys,* hallucinations are produced by a diseased condition of the *corpora quadrigemina*. Irritations of different parts of these *ganglia* are

* See his views explained in a pamphlet by Dr. Ant. Ritti, "Theorie physiologique de l'Hallucination." Paris, 1874.

believed by him to produce abnormal sensations of vision, hearing, and feeling; but the interpretation of such sensations is determined by the prevailing tone of the mind. As disease of the *corpora quadrigemina* may exist without disease of the hemispheres, we may have hallucinations without insanity.

In the cases of hallucination given by Dr. Ritti, where an examination was made after death, both the hemispheres and the *corpora quadrigemina* were found to be diseased; but no one will hold that abnormal conditions of the one organ necessarily imply a similar state in the other.

Swedenborg, who made even more decided claims than Mahomet to hold communication with another world, and, indeed, said in so many words that he could converse with angels and the spirits of men in heaven at his pleasure, seems to have fallen into fits of reverie or trance. He was observed by his friend Sprenger, in an inn, raising the hands towards heaven, and moving his body about. He spoke a great deal for half an hour, and then let his hands fall, and cried, "My God;" then he lay quiet. They asked him if he were unwell. He said, "I had a long conversation with the angels and with my heavenly friends, and am now quite wet with perspiration."

One day, in his own house, he fell into an ecstatic state, and two Jews who were with him, thinking that he was insensible, took a gold watch from him; but he asked it back when he came out of the trance. On another occasion General Tuxen noticed him in a state of reverie, his face leaning on his hands with his elbows on the table. On speaking to him he came to himself, but seemed confused and agitated. Swedenborg himself gave a strange description of his feelings when the angel appeared to him in London, and told him not to eat so much. He felt as if a mist streamed out at the pores of his body that was quite visible, and fell upon the ground, where a carpet appeared, upon which the mist gathered and changed itself into worms of all species, and were instantly burnt up. A fiery light appeared in their place, and a crackling was heard.

But it would be taking up your time in an unjustifiable manner to go on comparing the Swedish mystic with the Arabian prophet, especially after the able articles on Emmanuel Swedenborg, by Dr. Maudsley, in the "Journal of Mental Science."*

It is possible a careful study of the lives of other religious pretenders might help us to some useful generalisations; but such an undertaking would be very difficult, for the origin of old religions is generally lost in an uncritical antiquity, and the presence of philosophical observers will ever be a hindrance to the appearance of new ones.

If Luther did not profess to found a new religion, he was at least the leader of a great religious movement. As is well known, he was subject to delusions about the devil; nor is this very difficult to explain. Though gifted with extraordinary penetration of mind, a learned scholar, and a keen critic upon books, he had in common things all the superstition of a Saxon peasant. Of anything like physical science he was entirely ignorant, and his observations of the external world were merely used to give illustration to his preachings and controversies. One of the commonest sources of error and speculation is for men to attribute things they are unacquainted with to causes of which they know something, or think they know something. Luther's attention was entirely directed to the operations of the mind, the aspirations and struggles of the soul, and the political changes of the time; hence he gave psychical explanations of physical events. One day, when there was a great storm abroad, Luther said, "'Tis the devil who does this; the winds are nothing else but good or bad spirits. Hark! how the devil is puffing and blowing,"* Then, again, "Idiots, the lame, the blind, the dumb, are men in whom devils have established themselves; and all the physicians who heal these infirmities, as though they proceeded from natural causes, are ignorant blockheads, who know nothing about the power of the demon." It is well known that he wished a Cretin to be thrown into the Moldau on the theory that the Cretin was a fabrication of the devil.

The credulity of this great man on everything connected with the devil is very strange to men of this time. One-tenth of the critical power which was lavished upon the theses of Wittemberg, or the claims of the Apocalypse or the Epistle of St. Jude to rank as canonical books, would have made him distrust the silly stories about the devil which are so prominent in his table-talk. But he was a man of very powerful imagination, and subject to neurotic affections, which, as usual, he put down to diabolical agency.

* These quotations are all taken from "Michelet's Life of Luther," translated by William Hazlitt. London. 1856. See pp. 321, 338, 339, 208, 430, 102, 318.

This toothache and earache I am always suffering from (says he) are worse than the plague. When I was at Coburg, in 1530, I was tormented with a noise and buzzing in my ear, just as though there was some wind tearing through my head. The devil had something to do with it.

A man was complaining to him one day of the itch; said Luther, "I should be very glad to change with you, and to give you ten florins into the bargain. You don't know what a horrid thing this vertigo of mine is. Here, all to-day, I have not been able to read a letter through, nor even two or three lines of the Psalms consecutively. I have not got beyond more than three or four words, when buzz, buzz, the noise begins again, and often I am very near falling off my chair with the pain. But the itch, that's nothing; nay, it is rather a beneficial complaint."

In 1530 he writes:—

When I try to work my head becomes filled with all sorts of whizzing, buzzing, thundering noises, and if I did not leave off on the instant I should faint away. For the last three days I have not been able even to look at a letter. My head has lessened down to a very short chapter; soon it will be only a paragraph, then only a syllable, then nothing at all. The day your letter came from Nuremberg, I had another visit from the devil. I was alone, Vitus and Cyriacus having gone out, and this time the evil one got the better of me, drove me out of my bed, and compelled me to seek the face of man.

This is a very good description of what has been sometimes called irritability of the brain. The incapacity for mental exertion is frequently accompanied with hyperæsthesia. In his last illness he writes:—

I take it that my malady is made up—first of the ordinary weakness of advanced age; secondly, of the results of my long labours, and habitual tension of thought; thirdly, above all, of the blows of Satan; if this be so, there is no medicine in the world will cure me.

It seems to me an error to say that he wished it to be understood that the devil appeared to him and disputed with him about the mass. The truth is he was accustomed to refer all the evil thoughts that came into his head to the suggestions of the devil, and it is in this sense that he writes, "I awoke suddenly at midnight on one occasion, when Satan began to dispute with me in the following terms" (here followed a long argument about the mass).

During his strict retirement in Wartburg Castle his mind was in a very excited state. I do not know what contemporary authority there is for the story of his throwing the inkstand at the devil; as is well known, the mark is still

shown on the wall of the chamber he occupied, but the following is an instance of a hallucination of sight, if not also of hearing:—

When, in 1521, on my quitting Worms, I was taken prisoner near Eisenach, and conducted to my Patmos, the Castle of Wartburg, I dwelt far apart from the world in my chamber, and no one could come to me but two youths, sons of noblemen, who waited on me with my meals twice a day. Among other things, they had brought me a bag of nuts, which I had put in a chest in my sitting-room. One evening, after I had retired to my chamber, which adjoined the sitting-room, had put out the lights and got into bed, it seemed to me all at once that the nuts had put themselves in motion, and, jumping about in the sack, and knocking violently against each other, came to the side of my bed to make noises at me. However, this did not alarm me, and I went to sleep. By-and-bye I was wakened up by a great noise on the stairs, which sounded as though somebody was tumbling down them a hundred barrels one after another. Yet I knew very well that the door at the bottom of the stairs was fastened with chains, and that the door itself was of iron, so that no one could enter. I rose immediately to see what it was, exclaiming, "Is it thou? Well, be it so!" and I recommended myself to our Lord Jesus Christ, of whom it is written, "*Thou hast put all things under his feet*" (Psalm viii.), and I returned to bed. The wife of John Berblibs came to Eisenach. She suspected where I was, and insisted upon seeing me, but the thing was impossible. To satisfy her, they removed me to another part of the castle, and allowed her to sleep in the apartment I had occupied. In the night she heard such an uproar that she thought there were a thousand devils in the place.

It would appear that any noise he could not account for was attributed to Satan, who was perpetually haunting him.

Once in our monastery at Wittenberg (said he) I distinctly heard the devil making a noise. I was beginning to read the Psalms, after having celebrated matins, when, interrupting my studies, the devil came into my cell, and thrice made a noise behind the stove, just as though he were dragging some wooden measure along the floor. As I found he was going to begin again, I gathered together my books and got into bed. . . . Another time in the night I heard him above my cell, walking in the cloister; but as I knew it was the devil, I paid no attention to him, and went to sleep.

There is no proof that the delusions or hallucinations to which the German reformer was subject did in any way alter or modify his religious views. It is, however, easy to imagine circumstances under which they might have done so, and led Luther to become the founder of a new religion.

*On Graves' Disease with Insanity.** By ALEXANDER ROBERTSON, M.D., F.F.P.S.G., Physician to the Town's Hospital and City Parochial Asylum, Glasgow.

Before narrating the case which is the basis of this communication, I shall briefly advert to the leading features, and the views held regarding the nature of the remarkable neurosis with whose discovery the name of the late eminent Dublin Professor, Dr. Graves, is most frequently associated. The dependence of the psychical and somatic phenomena on one cause, common to both, will thus be more clearly demonstrated, and the claim which it seems to me the disorder of the mind has to be regarded as a distinct form of insanity will be more apparent.

The three great symptoms by which Graves' disease is so thoroughly individualised are cardiac palpitation, enlargement of the thyroid gland, and marked prominence of the eyeballs. With regard to the first of these—namely, the disordered action of the heart—it has been asserted that there is always organic change in the substance of the organ. Certainly in a considerable number of the published cases cardiac hypertrophy was diagnosed, and in some this was accompanied by valvular disease. But, on the other hand, it is well ascertained that structural alterations are far from being constantly present; that they are by no means essential elements; and that, where they exist, the hypertrophy at least is either a result of persistent over-action, or that both it and the increased action are to be regarded as common effects of a more remote pathological cause in the nervous system.

It would appear that in some cases a real cardiac hypertrophy, giving rise to a marked increase in the area of dulness in the front of the chest, had been only of a temporary nature, analogous to what sometimes occurs in pregnancy, when the organ returns to its normal size after child-birth; or to the reversion of the uterus after delivery to nearly its original dimensions.

Whether or not there be any change in the substance of the organ, the symptom *palpitation* is the first, as a rule, to make its appearance, and attract the attention of the patient;

* Read at a quarterly meeting of the Medico-Psychological Association, held in Glasgow on 21st May, 1874.

and it is also more uniformly present during the course of the disease than either of the other two leading phenomena.

As remarked by the late Professor Trousseau, the enlargement of the thyroid gland partakes largely of the nature of an erectile tumour or cirroid aneurism. Both trunks and branches of the thyroid arteries increase in size and become tortuous; the veins also dilate and stand out prominently on the surface. There does not appear to be any distinct hypertrophy of the gland-substance, though distension of the thyroid cells with gelatinous matter and, in some cases also, an increase in the amount of connective tissue have been noticed. The compressibility of the enlarged gland and its ready expansion, the pulsation in it, and the bellows murmur to be heard over the swelling, all indicate that the greater dimensions of the organ are referable chiefly to an abnormal development of its vascular system.

The third leading feature of the disease—the prominence of the eyeballs—is the one which most forcibly strikes the observer, professional or non-professional. The protrusion of the eyes is so great in some cases that the patient fears they will fall out of the orbit altogether; and Trousseau relates that this actually occurred in one of his cases, in which one eyeball fell out on the cheek, and was replaced by the fingers. Ordinarily both eyes are pretty equally affected, but this is not always so; for the one eye may project much more than the other, as in my patient in the advanced stage of his disorder.

There has been considerable diversity of opinion respecting the nature of the pathological changes within the orbits which give rise to this singular protrusion of the eyeballs. The view which has received greatest support from *post-mortem* examination is that, after the disease has been of considerable standing, the cellular tissue and fat at the back of the orbit become hypertrophied, and thrust the balls forward. As, however, often in the earlier stages, and sometimes also in the more advanced, the exophthalmos varies in degree, increasing when the other symptoms are more pronounced—in short, during a paroxysm—and diminishing during a general remission of the disorder, it is pretty clear that a portion of the enlargement is due to congestion of the blood-vessels.

Contrary to what perhaps might have been expected, the ophthalmoscope has yielded negative results in most cases; for the optic disc and retina were normal in aspect, except in one or two instances in which congestion and degenerative changes were noticed.

In addition to the three leading phenomena, a number of secondary ones are present in most cases. Thus, epistaxis is of not infrequent occurrence; menstruation in females is usually suppressed; and there is disorder of the stomach and bowels. The patient is generally anæmic, and emaciation is often very marked.

There is almost always a special psychical change pretty uniform in its character. There is much capriciousness and irritability of temper, along with a degree of depression amounting to despair sometimes. Delusions in harmony with this emotional state occasionally arise, and a disposition to violence is not infrequently manifested. The irritability usually differs to some extent, though not greatly, from the form which accompanies epilepsy. The latter is often blind, purposeless and instinctive in its manifestations. The former is less mechanical, and more under the control of the will. In a well-marked case in a young woman who was under my care about five years ago, the mental condition corresponded closely with the description I have just given, except that there were no delusions.

Many diverse views have been held with respect to the pathological condition which gives rise to these symptoms. As most of the patients are very anæmic, it has been thought that this state of the system is at the foundation of the disorder. But this explanation will not suffice; for the disease sometimes shows itself in persons who are in good condition, and whose blood is not impoverished. Thus, though the young woman to whom I have referred was decidedly anæmic, the male patient, whose case I record in this paper, was certainly not so.

The doctrine which locates the disease in the cervical and upper dorsal ganglia of the sympathetic system appears most fully of all those proposed to meet the requirements of the problem. For, first, the three leading symptoms very clearly point to some affection of the vaso-motor system of nerves; second, the mental disorder is also readily accounted for on the same hypothesis; and, third, cases are on record in which certain of these ganglia were found in a morbid condition on *post-mortem* examination.

I now proceed to the case which I wish specially to submit to the Society. Before the patient was admitted into the Parochial Asylum, he had been an inmate of the Glasgow Royal Infirmary on three different occasions. It was not, however, till after his death that I ascertained he had been

under the care of my friend Dr. Perry, one of the physicians to that institution, and that that gentleman had published an account of the case up to the close of the patient's last residence there, in a valuable communication on exophthalmic goitre, in the "*Glasgow Medical Journal*," for May, 1873.

I shall first briefly narrate the case as described by Dr. Perry, and then supplement his account by a statement of the additional or altered symptoms which were manifest when the patient was admitted into the asylum.

P. R., labourer, age 47, was admitted into the Glasgow Royal Infirmary in December, 1868, complaining of epigastric pain, and of a beating at his heart, or "purring," as he described it. This palpitation was not intermittent in its character, and was of the same intensity from day to day. The pulse in the right radial artery was considerably stronger than in the left, and preceded it in point of time, and a similar discrepancy was noticed in the carotids. The right pupil was much more dilated than the left, but was quite sensitive to light. The cardiac dulness was somewhat increased in extent, and at the base there was an additional area of dulness about two inches in breadth, extending upwards towards the top of the sternum. "Auscultation reveals at the heart's apex a clear, loud, and prolonged first sound, with a very faint and muffled second sound. At the base both sounds are faint, and much obscured by a constant rushing sound. When carefully listened to, this sound can be made out as a double murmur, which can also be traced in the course of the aorta over the dull area above the heart, before mentioned."

There was no enlargement of the thyroid gland, nor was there exophthalmos at this time, but on his readmission in 1869, after a few months' interval, these symptoms were well marked. They subsided under treatment, and he once more left the institution. His last admission was in April, 1873, and it is then noted that "his eyeballs are now very prominent, and look as if about to fall out of the orbits. The right and left lobes of the thyroid gland are each about the size of a turkey's egg, and pulsate violently. The isthmus is not so large in proportion. The heart's action is very rapid and tumultuous. All his symptoms become very much aggravated upon the slightest excitement, and sometimes without any apparent cause."

This, then, is the history up to April, 1873. The warrant for his confinement as a lunatic was granted on December 22nd, 1873. His wife stated to me on his admission at this date that his temper, which had been irritable since his trouble began, had become much worse latterly, and that for about a week before his removal to the asylum he had been quite unmanageable. His violence had been so great that his rela-

tives felt constrained to call in the assistance of the police for self-protection.

I found him to be a man of about middle height, neither florid nor pale in complexion, but rather disposed to the former hue, and much reduced in condition. His countenance had a most ferocious expression, no doubt partly due to the protruding eyeballs, but also largely the result of the maniacal excitement by which he was actuated. On my quietly asking his name, he answered in a loud tone, "What's your business?" jumped off his seat and seemed about to strike, but he suddenly restrained himself and sat down. This conduct he repeated several times on further questions, and no information could be obtained from him. No distinct delusions were disclosed, but his whole bearing indicated a morbid suspicion of those around him.

The right eyeball was obviously the more prominent of the two, and the conjunctiva of that eye was injected. The right side of the thyroid gland was the larger, and the superficial veins were also more distended on that side. There was marked palpitation accompanied by a heaving motion in the cardiac region; the pulse was about 120, weak, but regular.

On the evening of his admission he had a severe convulsive seizure, in which he was unconscious; and it was stated by the attendant not to have differed in character from an ordinary epileptic fit. Next day his wife said that he had never had a fit before, and it may be added here that he was not noticed to have any afterwards. After about a week the irritability and excitement subsided to a considerable extent. His general condition, however, became much worse. The stomach rejected almost all food. Severe chemosis of the right eye occurred, and ultimately the cornea sloughed entirely. Mentally he continued calmer, but was indisposed to converse, apparently through the severity of his illness. Prostration increased, and eventually death terminated his sufferings on the 11th January, sixteen days after admission. Much to my regret, his relatives refused to sanction a *post-mortem* examination.

In this case it can scarcely be doubted that the mental disorder was really a part of the general disease, as much so as the protruding eyeballs or hypertrophied thyroid gland. It seemed to differ only in degree from the lesser psychical perversion which, as we have seen, is so uniformly present, and existed in my patient himself in the preceding part of his illness. It was not merely a coincidence, that is, insanity accidentally supervening on the other phenomena. All the

symptoms, both mental and bodily, had apparently one cause, and that cause, as has been indicated, most probably was disease of the cervical sympathetic. The convulsive seizure, let me also say, had doubtless a similar origin. It showed that the morbid condition in the brain—one we would infer of hyperæmia—was not confined to the centres for mental action, but had extended to those for motion likewise.

I have said that the pathological condition of the brain, or, at least, of that part associated with mental action, is probably hyperæmia. At first sight, considering that most of the patients afflicted with Graves' disease are weakly and reduced in condition, an opposite condition might be supposed to exist in that organ. But when it is remembered that the blood-vessels of the thyroid gland, and those within the orbit have been *seen* dilated in *post-mortem* examinations of patients who laboured under the ordinary forms of the disease, it may reasonably be inferred that a like state exists within the skull when insanity supervenes. And this will appear the more probable, when it is remembered that gland, eyes, and brain have, there is good reason to think, the same regulating centres for their blood-vessels, namely, the sympathetic in the neck. Nor, on the other hand, is it at all unusual to meet with cases of hyperæmia of one or a limited number of organs in an anæmic state of the system.

Cases in which positive insanity arises are certainly not common, but they are by no means rare. Thus one, very similar to my own, is recorded by Dr. Morell Mackenzie, in the "Clinical Society's Transactions" for 1868, and another one, described by Professor Meynert, is quoted in the "Annales Médico-Psychologiques," for March last.

Granting then that the insanity in Graves' disease is a legitimate outcome of the pathological condition on which the other phenomena are dependent, are we not entitled to ask for it a special place in such a classification as that of the late Dr. Skae? His valuable system is especially based on etiology, though it is by no means restricted to it. In the form of disorder we have been considering, the causation is apparently well defined, the accompanying physical symptoms are also tolerably constant and uniform, and the features of the mental disorder itself bear a pretty close resemblance to each other in different cases. Thus, then, in respect of causation, and of symptoms relating to the body as well as to the mind, this form of insanity is distinctly specialized; as much so, at least, as the majority of those included in Dr. Skae's classification.

On the Physiology of General Paralysis of the Insane, and of Epilepsy. By GEORGE THOMPSON, L.R.C.P. Lond.; Medical Superintendent of the Bristol Lunatic Asylum.

In the first and second volumes of the West Riding Asylum Medical Reports, 1871-72, there appeared two papers bearing my name, which were entitled, the one "The Sphygmograph in Asylum Practice," and the other "The Sphygmograph in Epilepsy." The first paper, besides containing a few general remarks, was, however, confined to the study of the physiology of General Paralysis; the other, as its name implied, referred entirely to certain phenomena observed in Epilepsy, and contained a few speculations as to the origin and nature of these phenomena. Both papers had been hastily prepared, though they really represented an amount of patient labour such as probably I shall never undertake again. The later one had also the disadvantage of being so cut and mutilated for want of space that, when finished, I hardly recognised my own work. I had begun to think that they were to be considered of no real value, and only fit to pass into the limbo of forgotten things, when they were suddenly snatched from a threatening oblivion by having assigned to them a prominent place in the new edition of the work so familiar to many engaged in this special branch of medicine by the names of Bucknill and Tuke. More recently they have been brought into further prominence by being incorporated into that clever, thorough work, "The Pathological Anatomy of the Nervous Centres," by Dr. Long Fox, where the views originally advanced by myself are put in much clearer and more forcible language than I could ever master. It has occurred to me, then, that now is a good opportunity for considering *de novo* the bearings which these speculations may have on the further elucidation of the nature of the origin of two diseases, one of which, at least, has hitherto been enveloped in darkness, and which, because of such ignorance, has, until recently, baffled all attempts to effect anything like a certain cure.

I may be permitted to say here, that I have long been convinced, that, in endeavouring to find out the true nature of the cause of any disease, or even of the disease itself, by examining the condition of the parts involved after death only, we begin at the wrong end—though I would be loth to say that time so spent was utterly wasted

—and that, if we would have reliable facts upon which to base our theories and practice, such facts must be the result of observation upon the living, rather than upon the dead, subject. This much should be said, however, in support of those indefatigable workers, the microscopists, that until the invention of the ophthalmoscope and the sphygmograph, and the adaptation of the thermometer to the physician's wants, there was no other instrument than that one upon which they built their hopes. But I may possibly be pardoned if I ask here, what has the microscope done for the elucidation of disease which, more frequently than not, is only a manifestation of perverted function? This instrument may enable us to make out "disseminated molecular degeneration," "proliferation of cellular tissue," or "fatty decay," but does it carry us any farther? The more I think of the negative results which follow the use of the microscope, the more do I think it is an instrument much overrated as to its value as an aid to the proper study of those subtle influences which are at work in the origin, or through the course, of any given disease. On the other hand, the other three instruments I have named—to which, of course, should be added the stethoscope—enable us to see disease when it really exists, and not merely the results, when it has done its deadly work.

The remarks which are to follow I propose to devote, in such proportion as may be necessary, to the consideration of the two diseases named at the head of this essay; and if I refer to conditions found after death, it will only be for the sake of assisting to make clear the arguments which will be advanced as being the result of observations made during the life of the individual.

General Paralysis is the subject for consideration first; and here I will remark how much encouragement is given in the account of the cure of two cases, even far advanced when first subjected to treatment, as told by Dr. Crichton Browne in the "*British Medical Journal*" for October 24th, 1874. It must be borne in mind that until recently the cure of General Paralysis of the Insane was a thing unthought of; now, it is a stern reality!

The tracings made by the sphygmograph, inserted into my first paper, were all original except one. They are, for the most part, reproduced in the "*Manual of Psychological Medicine*," by Drs. Bucknill and Tuke, and may there be easily referred to. The tracing I had borrowed was taken from Dr.

Carpenter's "Human Physiology" (7th Edit.). The tracings are illustrative of the arterial condition in health, in pyrexia, in a state of chill—say after the individual had been exposed to a cold-water bath—in general paralysis, with no treatment, and in the same disease after treatment by Calabar Bean.

In some critical remarks on my first paper, which appeared in the "Journal of Mental Science" of January, 1872, the reviewer, while according to me the credit of possibly being the means of clearing up a question which was then involved in obscurity, charges me with having shown some tendency to look for facts to fit theories. This sort of criticism is always cruel in itself; but when I remembered that I had all the facts staring me in the face long before I had discovered in my mind a single theory, and that had it not happened that I had stumbled over the tracing of Dr. Carpenter, which had been taken from a "chilled" individual, I should probably never have troubled the world with either fact or theory, I felt, for once in my life, how bitter sarcastic abuse may be. This time I shall be so bold, then, as to give my theories first, and then to bring forward such facts as I may deem necessary for the support of those theories.

The Theories.—I use Dr. Long Fox's words and my own. (1.) That the organic change which exists in the very early stages of General Paralysis consists of a diminished calibre of the vessels, which is of the nature of a persistent spasm. (2.) That this spasm, though persistent if left untreated, is, if recognised early, amenable to remedial means. (3.) That the lesions found after death are not the cause, but the result, of early organic changes that need be only of temporary duration.

The Facts.—(1.) That the tracing of the pulse taken at the wrist by the sphygmograph in cases of General Paralysis, when untreated, is precisely similar to that found in a person in good health who had been exposed to a cold bath for the space of one minute. (2.) That the vessels of the retinae and optic discs are thin and attenuated, and the discs themselves are void of their natural pink tint. (3.) That General Paralytics are more frequently the subjects of cerebral syncope than persons labouring under any other disease of the brain. (4.) That in the early stages of General Paralysis the temperature of the body is lower than in health, and the skin of persons so affected is then in that condition known as the *cutis anserina*, resembling that condition

seen in the cold stage of ague, in cholera, or in the rigors preceding a febrile attack. (5.) That by the administration of such remedies as are known to be antagonistic to spasmodic action, the pulse-tracing may be brought back to a healthy form, the natural appearance of the retinae may be regained, the temperature of the body may be raised to the normal standard, and then the skin will assume its original smoothness.

It will be seen, then, that the facts, in volume at least, far outweigh the theories, which may now be considered *seriatim*. To do this the more effectively, however, the facts should be taken with the theories.

The theory of persistent spasm is based upon the uniform appearance which is obtained in the pulse-tracing taken in the early stages of general paralysis. The tracing is such as is always found when the individual is exposed to such means as are known to produce spasm of involuntary muscular fibre. These means are the application of cold to the surface of the body, the administration of ergot, atropia, bromide of potassium, and lead. In treating epilepsy by means of the three drugs first named, I have frequently produced a tracing such as is found by Dr. Carpenter after the application of cold, and by myself in general paralysis when untreated. M. Lorain has published tracings taken in lead-poisoning which very nearly resemble Dr. Carpenter's and my own just referred to. All recent writers on lead-poisoning, attribute the colic found in this disease to spasm of the muscular substance of the intestine, and many of them attribute the nervous symptoms so general in this disease to wasting of nerve substance, or rather to ill nutrition of the same. Dr. Swaine Taylor says that "after death the large and small intestines are found much contracted." Dr. Aitken says that "the morbid appearances in the brain and spinal cord are generally such as denote imperfect or depraved nutrition of these centres." Dr. Ringer says that the bloodvessels are subject to cramps, like other parts of the body; and Dr. Garrod says that lead produces a smaller pulse. According to these authorities on therapeutics, the same occurs in poisoning by ergot of rye; the action of this drug upon the uterus—the involuntary organ *par excellence*—is too well known to need more than a passing remark. These observations will, then, make clear the reason why the pulse-tracings found in the several conditions should so strongly bear a family likeness in common with the tracings found in the disease more immediately under

our consideration. My friends, Drs. Allbutt and Aldridge, though they differ in some minute particulars, are agreed as to the condition of the retinae and optic discs as seen in general paralytics. This condition is one of arterial contraction as a rule, but occasionally a hyperæmic condition is found. As I proceed, I may give a reason for this latter condition. But in looking through the tables given by Dr. Aldridge in the second volume of the "West Riding Asylum Reports," it will be seen how frequently, in fact, how generally, the term "arteries very small and not numerous," or its equivalent, occurs. The temperature of general paralytics has been said to be lower than in healthy persons. Dr. Macleod, whose observations are quoted by "Bucknill and Tuke," shows that this is invariably the case before mid-day. He shows further that there is generally a rise after dinner. I will speak further of this by-and-bye. As to the condition of the skin, I need only appeal to the experience of those under whose notice cases of general paralysis frequently come, for confirmation of my statement.

The next theory refers to the remediability of this disturbance of function, which I have ventured to call spasm. And here I will revert to the occasional hyperæmic condition of the optic apparatus, and to the rise in temperature noted after mid-day. I think it will soon be seen that the whole mischief lies in a "nutshell," which is *vascular hypersensitiveness*. In making some sphygmographic observations on one man, a general paralytic, I recently found that while, as a rule, the tracing denoted vascular spasm, it was only necessary to give him a half-pint of moderately strong beer—the ordinary asylum beer—to produce the tracing which is usually found in pyrexia. In other words, I was able by such a simple means to change the tracing from being polycrotous to the typical dicrotic one found in fever. Here, then, was new light and good reason for further speculation. I naturally turned to the thermometer. At the first tracing taken, then, on a subsequent day, when the usual polycrotic sphygmogram was found, the temperature stood at 97° Fahr. Half an hour after the administration of the usual dinner allowance of beer, when the fever tracing was again found, the temperature stood at 98° Fahr. I have repeated this experiment subsequently on the same man, and on other patients, with nearly the same results. Here, then, we see such a state of sensibility as is far from normal, and if over-dilatation is so easily produced, it may naturally be asked does the reverse

ever occur? To this we have the reply in the occasional occurrence of cerebral syncope referred to under the head of the third "fact." This condition, I think, assumes what is known as "shock," and in my experience generally occurs after a sudden distension of the stomach. Two days before writing this, my attention was called to a female general paralytic, who was then in an alarming state of syncope. Before any stimulant could be got at, she vomited a large dinner, just taken, and then rapidly recovered. Experience of this nature must be common to all engaged in this special department of medicine. Arterial spasm, then, may be regarded as amenable to treatment.

With regard to my third theory, I will begin its consideration by quoting the words of Dr. Long Fox,* who, after enumerating with other causes a "variation in the normal blood supply to the brain" as being one sufficient cause, says, "Each of these, if long continued, or frequently repeated, will induce structural lesion that can be recognised after death; each of them may be the starting-point of phenomena of a severe character, and if the duration of the attack be not protracted, will leave no *post-mortem* appearance. Still the lesion is present during life." Again, in speaking of the doctrine of persistent spasm of the vessels as being the primary cause of tissue changes, Dr. Fox says, "This is an illustration of a morbid condition that at first would leave no recognisable structural results; but it would be wrong to say that the early symptoms of general paralysis were not connected with organic change. The organic change is in the diminished calibre of the vessels, which not only persists, if left untreated, but will lead to further lesions; whilst, if recognised early, it is amenable to remedial means, at least for a time." How much stress is laid by different writers on the functions of the nervous system, upon the need for a steady and an equable supply of blood, I need hardly relate. Dr. Carpenter† tells how the *recording* process ceases when nutritive changes in the brain are impaired; and further, that the *potential* energy laid up in store by nutritive action is converted into *actual* energy, by the oxygen supplied through the medium of the blood. Herbert Spencer‡ tells how the nerves and nerve-centres act only so long as they are furnished with those materials which the blood vessels bring

* "Pathological Anatomy of the Nervous Centres."

† "Mental Physiology."

‡ "Principles of Psychology," Vol. i.

them. The same writer also lays much stress upon the importance of the vaso-motor apparatus as a means of regulating the blood vessels so as to subserve general and local needs. But these are for the most part but rudimentary ideas, which must have been long familiar to all.

In what disease more than all others do we see undoubted evidences of mal-nutrition as that now under discussion? In no disease, unless it be that known as senile dementia, do we find the "*recording process*" so feeble, or so nearly, if not entirely, absent. The general paralytic, when in an early stage of the disease, is known before all other symptoms by forgetfulness, not of things long past, but of recent events. He neglects his business; he becomes careless as to matters which otherwise would be of supreme importance to him; his affections are blunted; his morals perverted. It may be that for some time to come the *potential* energy spoken of by Dr. Carpenter exists in abundance, but the power imparted to the brain by a rapid flow of healthy blood—*actual* energy—is not called into existence—and why? because the brain is blanched; it is deprived of the elements of nutrition.

It will be asked, however, what is the cause of this arterial spasm—this blanching of the nervous system? To this I reply—a heightened susceptibility on the part of the vaso-motor system to such influences as are likely to affect it. Happily this extreme susceptibility does not exist, except in the few; nor does it always lead to the introduction of the terrible malady we are considering. The case of wild excitement, recorded by Dr. Sutherland,* in the person of an officer in the army "up in town on a spree," is an instance of "hypersensibility;" but one would hardly venture to say that such a case would terminate in general paralysis. But no drug brings out this feature so powerfully as alcohol, and this hypersensibility is very common in the insane. Watch the effects of dinner upon the insane where beer is an article of diet. The lively become morose, and the morose lively. One of the cases where death ensued after a small dose of chloral, when I held office at the West Riding Asylum, was that of a man who, after a single glass of beer, became "fearfully flushed," as the attendants said. The heightened susceptibility takes the form then of alternate over-dilation and over-contraction—of over-stimulation followed by a

* "Brit. Med. Journal," Nov. 14th, 1874.

reaction. But the reaction becomes a persistent condition. The paralysis of the sympathetic, causing dilation, becomes an irritation, causing persistent contraction: this persistent contraction prevents the rapid flow of the blood so essential to the nutrition of the brain, and the phenomena known as brain-wasting are the result.

One other fact pointing to arterial contraction in general paralysis. Dr. Wilkie Burman,* says in his article, "Heart Disease in Insanity:"—"The mean average weight of the heart is considerably greater in general paralysis, and in chronic or consecutive dementia (disorganisation of the brain) than it is in other individual forms of insanity." The reason is sufficiently obvious. The heart has become hypertrophied through the powerful efforts it has made to send on the normal supply of blood, such efforts being rendered necessary by the absence of dilatability of the vessels.

The Remedy.—The cases must be recognised early. Dr. Sherlock and (I think) Dr. Duckworth Williams relate how they have reason to place no confidence in the Calabar bean which has been proved of such efficacy in other hands. But they made this mistake—they used it when the disease was too far advanced. Bring to me a case such as those described in the Worcester and Sussex Asylum Reports, and I will tell you that they possess no interest for me. These gentlemen gave the Calabar bean during excitement. That is just the time when I omit it. I have often given the drug until excitement and occasionally an epileptiform seizure have been brought on. But then I stop its use—for a time, at least. I have not such confidence in the use of Calabar bean as Dr. Crichton Browne has, but in my hands it has answered all reasonable expectation. I daresay the day is not far distant when the real remedy will be known. In the meantime, the Calabar bean, in properly-selected cases, will be found to be the best—I think I may say, the only—remedy the pharmacist can provide us. Whatever it may be, the remedy must be one which will remove that over-sensibility of the arterial portion of the vascular system.

* West Riding Asylum Reports, Vol. iii., 1873.

(To be continued.)

To Illustrate Dr. Howden's Case of Senile Dementia.



MILIARY ANEURISMS IN THE PIA MATER.

CLINICAL NOTES AND CASES.

Case of Senile Dementia : Death from Coma ; Brain-shrinking ; Sanguineous Effusion into Arachnoid Sac, resulting from Rupture of Miliary Aneurisms in Pia Mater. By JAMES C. HOWDEN, M.D.

The chief interest in this case was the presence of immense numbers of aneurisms in the minute vessels of the brain and pia mater, to the rupture of one or more of which the hæmorrhage into the sac of the arachnoid which was the cause of death was due. For full details as to the history and pathology of these miliary aneurisms, the reader is referred to the admirable memoir of "The Pathology of Cerebral Hæmorrhage," by MM. Bouchard and Charcot, translated by Dr. T. S. MacLagan, of Dundee.

J. N., æt. 74, admitted 10th August, 1874, a labourer, married, said to have been a sober and industrious man.

With gradual decline of bodily vigour, his intellect has become gradually impaired, and latterly he has been troublesome at home from profound stupidity, restlessness, and tendency to wander both by day and night.

On admission he seemed quite stupid and vacant, appeared to have no idea of his surroundings, could answer no questions nor speak coherently. His attempts to speak were marked by a stuttering hesitation. Both pupils were regular, and of equal size. Except a general feebleness there was no symptom of paralysis. Bodily functions seem otherwise normal.

Sept. 1st.—Has remained in the same state as on admission. He is filthy in his habits, his excreta passing apparently unconsciously to him. Unless he gets a draught, he never sleeps. Enter his room when you will at night or day he is lying wide awake. His feeding requires to be carefully attended to for fear of choking, but he eats with great avidity, and swallows with apparent ease.

Sept. 13th.—Is much more feeble, and contrary to his usual custom, refuses food.

Sept. 16th.—At 11.30 p.m. was found in a comatose condition.

Sept. 17th.—Died at 8.40 a.m.

Sectio Cadaveris, 18th Sept., 2 p.m.

Body, well nourished. Rigor mortis marked.

Head.—Calvarium normal. Dura mater thick and leathery. Pacchionian bodies unusually prominent, especially on left side. The

arachnoid surface of the membrane presented general rusty discoloration, most marked in the anterior fossæ. Marked general opacity of the arachnoid. In the middle and posterior fossæ on both sides there is a thin layer of semifluid blood. This clot is densest on the middle fossa on the right side. Corresponding with this, over the third or inferior temporo-sphenoidal convolution of the right cerebral hemisphere, there was a distinct dark clot attached to the arachnoid, which appeared ruptured at this point. There was a quantity of serous fluid in the form of bullæ in the meshes of the pia mater in the cerebral sulci. The membranes were easily removed from the surface of the brain. The vessels at the base and in the fissures of Sylvius were very atheromatous. The grey matter of the convolutions was soft and œdematous. The lateral ventricles were distended with fluid.

Microscopic Examination of Brain.

The brain-cells in all parts of the grey matter examined were clouded with fuscous granules, which almost always obscured the nucleus. The granules were observed in many instances to extend along the nerve fibre where it issued from the cell. From the irregular outline of the cells there was little room to doubt that the granular deposit was outside the cell wall. A large proportion of the cells had a shrunken and misshapen appearance. The outer layers of the grey matter of the convolutions contained numerous amyloid and hyaline bodies. The minute vessels in the grey matter were almost universally coated with granular matter.

On examining the pia mater in the vicinity of the clot, the minute vessels were found to present numerous twistings, and very well marked aneurismal dilatations. These miliary aneurisms, though most numerous near the clot, were found in all parts of the pia-mater, and frequently in the minute vessels penetrating the grey matter. The dilatations were of various extent, from a slight bulging, to a distinct round ball. In every instance their walls presented a granular aspect, specially marked at the points where the vessels entered, or issued from the dilatation. In many instances three, and in some cases four, vessels were seen opening into one aneurism which had formed at the point of branching. Some of the aneurisms were ruptured, but this may have been done during the examination (*see Plate*).

Fife and Kinross District Lunatic Asylum.—Clinical and Pathological Memoranda. By G. HUNTER MACKENZIE, M.B., Assistant Medical Officer.

1. *Case of Brain Tumour, with Epileptiform Convulsions.*

J. J., a deaf and dumb female patient, was admitted into the Fife and Kinross Asylum in Sept., 1866, labouring under congenital imbecility. During her residence in the asylum, the chief mental phenomena consisted of fits of irritability of temper; these were at times

so intense as to render her aggressive and dangerous. She was tall, muscular, and well-developed, and enjoyed good bodily health. Occasionally she suffered from headaches, which she indicated by putting her hand to her head in an expressive manner. There was no paralysis of any of the cerebral nerves, and the sense of smell seemed very acute.

The following are a few clinical notes of her fatal illness:—

On the 9th January, 1874, between 1 and 2 a.m., fits of an epileptiform nature suddenly set in, without any premonitory symptoms, unless one of her usual fits of irritability be reckoned as such. The first two or three were unobserved, but in the succeeding ones, which occurred every 10-15 minutes, it was noticed that the clonic spasms commenced in the flexor muscles of the left hand and forearm, and then extended to the whole left arm and side. They then became general—affecting the right hand and arm to a much less degree than the left, and the legs less than either of the arms. The legs often exhibited a mere convulsive twitching. The subcutaneous injection of a solution of sulphate of atropia failed to produce beneficial results. Counter-irritation to the nape of the neck was followed by a cessation of the fits, lasting about 12 hours, during which she lay tossing her head from side to side. The convulsions were again and again renewed, until the morning of the day of death (11th January), when they became entirely limited to the left arm. These localized convulsions occurred every 2-3 minutes, and consisted of slight clonic spasms commencing at the fingers, and extending in succession to the wrist and arm. They could be induced by touching the hand or arm, and ceased some hours before death. This took place on the 11th, at 9.30 p.m.

Autopsy.—Calvarium thick; membranes normal. On raising the two frontal cerebral lobes, a tumour, about the size of a small orange, was found springing from the cribriform plate of the ethmoid bone, and occupying the cavity between the two orbital roofs. Its dimensions were—antero-posteriorly 2 inches, transversely $1\frac{1}{2}$ inch, and it was 1 inch deep at its thickest (central portion). It extended backwards from the crista galli to the anterior edge of the optic commissure, and fully two-thirds of it was situated to the right of the mesial line. Its basilar attachment was firm and broad. The optic nerves appeared to be implicated; they could not, however, be satisfactorily made out without removing the tumour, which was undesirable.

Nature of the Tumour.—Its surface was nodulated, and consistence fibro-sarcomatous; and on section, it was seen to be whitish-grey in colour, with intersecting fibrous bands. Under the microscope ($\times 150$) bundles of fine fibres were noted, with masses of yellow granular material in the meshes—($\times 350$); it was observed to be composed of round cells, with granular contents, a large nucleus occupying more than half of the cell, and a bright, refracting, tri-partite nucleolus.

Fusiform cells of various sizes, each possessing a highly granular nucleus, and a number of fine nucleated fibre cells, were also present.

By the pressure of the tumour the marginal convolutions on both sides were atrophied—the atrophy being deeper on the left, while superficially it was greater on the right. There was no lesion of Broca's convolution. The brain was very hyperæmic, and the superficial veins were gorged to distension.

The only other important feature disclosed on autopsy was the great congestion of the lower lobe of both lungs, which sank in water.

2. *Case of Recurrent Mania successfully treated by the subcutaneous injection of Morphia.*

As the result at the Fife and Kinross Asylum of a somewhat prolonged trial of morphia in the treatment of mental disease by subcutaneous injection, only indifferent success has, in the majority of instances, been attained. In some cases of mania and melancholia, no appreciable benefit was derived from the administration of the drug; in others, amelioration of the patient's condition, but only of a temporary nature, followed. There is, however, at present in this asylum, a well-marked case of recurrent mania, in which the exhibition of morphia by subcutaneous injection at the commencement of, and during, the maniacal paroxysms has been followed by the most beneficial results. To this case I now venture to direct attention.

J. W., female, æt. 48, in excellent bodily condition, has attacks of recurrent mania every six to eight months, and lasting for as many weeks. During the attacks her character completely changes—instead of being quiet, industrious and agreeable, she becomes mischievous, vituperative, filthy and noisy. Various remedies had been previously tried to prevent, modify, or cut short the attack, but none had succeeded. The following notes show the result of the treatment by morphia:—

8th November, 1873.—An attack of recurrent mania, the premonitory symptoms of which have been present for some days, has now fairly set in. Half a grain of morphia acetate* was injected subcutaneously at evening visit.

15th November.—The acetate of morphia, in doses varying from two-thirds to one-and-a-half grain, has been regularly injected each evening. During the first two days, some amount of sickness, with bilious vomiting and loss of appetite, were present; these, however,

* The formula employed was as follows:—

Recipe—Morph. acetat. grs. xx.

Acid : acet : fort : ms. iii.

Aquam : destill : ad : drs. iv.

Strength—1 gr. in 12 minims. solve.

gradually disappeared, and on the last-mentioned day (15th) she was quiet and civil, and on the 18th was able to be removed from the refractory ward.

This case exhibited that periodicity so generally seen in cases of remittent and intermittent mania, and a recurrence of the malady took place on the 22nd June, 1874. The patient was immediately treated as on the previous occasion, with this difference, that the injection was given in the morning instead of in the evening, and then smaller doses were found to be sufficient. At the beginning she felt a little squeamish after each injection, but this gradually passed off, and on the 3rd July the medicine was stopped, the attack having completely subsided.

The relief to all concerned in the management of this patient, and who had seen her during her former maniacal attacks, was as acceptable as unexpected. It is intended that during each succeeding recurrence of the mania, the patient shall be treated in the way above described, and it will be interesting to observe, whether, should the attacks be again successfully combated, a radical cure may not eventually be effected.

I deem it proper to add, that the above mode of treatment was pursued in two other cases of recurrent mania, with the following results:—In a male patient, *æt.* 50, the attack was materially modified; in a female, *æt.* 45, the result was *nil*.

3. Case of *Acute Mania*—probably *Tubercular*; *Dementia*; *Recovery*.

The prognosis in this case was unfavourable for the following reasons: (1.) The strong hereditary tendencies to mental disease and phthisis pulmonalis; (2.) the consanguinity of marriage in grand-parents; (3.) the poor physical condition of the patient on admission; (4.) the unfavourable course of the malady during the greater part of its duration.

The history is as follows:—W.S., male, *æt.* 22, admitted on 30th October, 1873, suffering from acute mania of about a week's duration, supposed to have been induced by disappointment in love. Tubercular diathesis well pronounced, with a suspicion of the presence of phthisis pulmonalis. Weight, 9st. 9lbs.

The hereditary history shows, on the father's side, that the father himself is eccentric and silly; that an uncle suffered from recurrent melancholia, and died in an asylum, *æt.* 46; and that an aunt is silly and weak-minded. Two

uncles died of phthisis pulmonalis, æt. 24 and 40 respectively. On the mother's side, the grandfather was insane, and an uncle and aunt suffered from melancholia and dementia, and were both confined in asylums. Mother died of phthisis pulmonalis, æt. 35.

Paternal grandfather and maternal grandmother were cousins.

Patient is the eldest of a family of three; all are weakly, and very subject to colds.

The course of the case, and the method of treatment adopted, may be thus briefly summarised:—

During the acutely maniacal stage, which continued till the 21st November of the same year, he was treated with morphia, subcutaneously injected, along with extra and careful dieting and regulation of the bowels. The stomach-pump required to be frequently used.

Nov. 22nd.—Has been quieter for last two days: a state of dementia is now supervening. Hæmatoma forming on left ear. Commenced the use of cod-liver oil in drachm doses thrice daily. Feeding well.

May 5th, 1874.—The chief features manifested since last report have been those indicating profound dementia, with slight intercurrent maniacal attacks, when he became impulsive and aggressive. Harsh and almost bronchial breathing detected at right apex, for which iodine has been locally applied to chest. Cod-liver oil still being continued in half-ounce doses thrice daily. Tonics have frequently been administered.

June 15.—Symptoms of a probable recurrence of mania are now being presented; otherwise, no change.

July 10th.—The incipient maniacal attack gradually passed off, and patient during the last two weeks has been daily getting clearer in intellect. He is now talking and acting sensibly, and is able to engage at his ordinary work (a mason). Physical condition greatly improved. Thinks it is about three weeks since his admission to the asylum.

July 31st.—To-day discharged, having apparently completely recovered.

September 5th.—On inquiry of his friends, he is reported to be still keeping well, and industriously employed.

Remarks.—The hereditary history of this patient shows a race with the strongest possible tendency to two of the most inveterate constitutional diseases—insanity and phthisis pulmonalis, and deteriorated by the presence of a consanguineous marriage. The frequent curability of cases of mental disease where a hereditary taint is present has amply

demonstrated the fact that, in them, it is not the impossibility of a recovery that is to be feared, but the probability of a relapse. Curable, however, as the majority of these may be, it cannot be doubted that in a case like the present, with a constitution thoroughly *saturated* with insanity, the prospects of even a temporary recovery are anything but bright, more especially when the strong phthisical tendency of the patient is also taken into account. True, on admission, though the tubercular diathesis was extremely well marked, no physical signs of the actual existence of phthisis were detected; but it must be remembered that authorities agree in allowing that the latency of this disease among the insane extends to from one-fourth to one-third of the cases. To ward off lung disease was one of the main objects of treatment here. The case may not improperly be referred to the class of tubercular insanity, presenting as it does some of the leading features described by Dr. Clouston as belonging to this variety,—the tubercular tendency and diathesis, the almost contemporaneous development of the two sets of symptoms, a state of mania passing into dementia, and the frequency of those unprovoked, irritable, impulsive turns which Dr. Clouston fitly describes as “a mixture of sub-acute mania and dementia.” The prominent feature of delusions of suspicion was absent. The consanguineous marriage tended to add to the unfavourable nature of the prognosis; for, in this case, not only was there an intermarriage of blood relatives, but of “relatives with similar vitiations of constitution.”

During its progress the case presented several unfavourable features, as for instance, the supervention of dementia. This, unless when primary, is generally regarded as of bad prognosis. In reference to the hæmatoma auris, Bucknill and Tuke say: * “When present, and not due to violence, it adds to the unfavourable nature of the case, so far as it indicates that nutrition is below par. At any rate, the cases in which it occurs are generally incurable forms of insanity.” In the present instance, its presence could not be attributed to violence.

Gloomy, however, as the case was, it still showed a few favourable points. Conspicuous among these were the sudden onset of the malady and the acuteness of the symptoms. We know that, *cæteris paribus*, the prognosis in mental disease is favourable in direct proportion to these.

Here the insanity had only been of a few weeks' duration, and the attack was so acute as to require the patient to be brought by his friends to the asylum bound hand and foot. Another favourable feature in the case is the fact of the patient being an eldest child. I am not aware of attention ever having been directed to what at least has been the result of my somewhat limited experience and investigation in the matter—that *not only is insanity most prevalent amongst youngest children, but in them it is generally found in its worst and most incurable forms*, the converse being the case as regards the eldest members of families. In confirmation of this, I may state that enquiries into the majority of admissions to this asylum during the past year yield the following results :

- (1) 48·7 per cent. were youngest children.
- (2) 13·5 " " eldest "
- (3) 25·0 " " nearer youngest than eldest child.
- (4) 12·8 " " nearer eldest than youngest child.

It will thus be seen that about 50 per cent. of the ascertained admissions were youngest children, and a considerable proportion of the cases included under No. 3, as being nearer the youngest than the eldest child, were the youngest but one of families with 5-10 members. The numbers from which the above figures are taken were necessarily limited, and it will therefore be interesting to know if the observation of others, with wider fields for investigation, yield similar results. The question is not devoid of practical import, for if the accuracy of my percentages be confirmed by other and more extended research, the necessity of *especially* protecting the younger members of families from the influences conducing to insanity will be apparent. But, as before stated, not only have my inquiries shown that insanity is most rampant amongst youngest children, but also that in them the percentage of recovery is lowest. Of the admissions above referred to—

- (1) 21·0 per cent. of youngest children have recovered.
- (2) 50·0 " eldest " "
- (3) 20·0 " children nearer youngest than eldest have recovered
- (4) 21·0 " children nearer eldest than youngest have recovered

The majority of the unfavourable cases at present in this asylum are youngest children, and a woman who committed suicide while out on leave was a youngest child.

To the fact of W. S. being an eldest child, and to the greater natural tendency towards recovery from mental disease evinced by eldest children, I am inclined partially to attribute the favourable termination of the case.

On the occurrence of an Organized Fibrinous Substance formed during life in the veins of the Pia Mater and Brain, in those dying during the "typhoid" stage of Acute Insanity.

By T. S. CLOUSTON, M.D., F.R.C.P.E.

H. B. E., admitted in a typhoid state, after a short acute attack of maniacal excitement at home. She was almost comatose, only being roused to show the least signs of sensibility on one or two occasions during the two days she lived. Pulse 120, very weak; temp. 103.8° ; face and neck dusky and flushed, apparently from vaso-motor paralysis of all the branches and capillaries of the external and internal carotid arteries. She died perfectly comatose.

At the *post-mortem* examination there were found in the veins, both smaller and larger, of the pia mater, small white pearly-looking bodies, that looked at first like limited white thickening of the venous coats, but were found to be masses of organized fibrinous material. In many places these were attached to thin strings of the usual *post-mortem* clot, and the difference between the two structures was very great. A microscopic examination showed this difference still better. Instead of the ordinary white blood corpuscles caught up in the meshes of innumerable fine fibres of white *post-mortem* blood clod, those masses consisted of bodies like the white blood corpuscles, but much larger, with distinct nuclei and nucleoli, and instead of the fine linear fibres there were fusiform cells cohering strongly, among which those bodies lay in regular parallel rows.

The whole of the brain was dusky and congested, and with a considerable amount of blood crystalline matter through it, when examined microscopically. The cells of the convolutions were very granular.

I have met with the same appearances since to a less degree in a general paralytic who died comatose in a congestive attack.

Is it possible that in those cases the vasor-motor paralysis and blood stasis that form so essential a feature in the typhoid condition of acute insanity and the congestive attacks of general paralysis, had gone on to a still further stage, when the white blood corpuscles began to adhere to the inside of the walls of the vessels, gradually accumulating and becoming organized into the masses I have described?

Two Cases of Melancholia presenting Similar Mental Manifestations, evidently the result of Visceral Lesion. By J. A. CAMPBELL, M.D, Medical Superintendent, Garlands Asylum, Carlisle.

J. W.—Admitted into Garlands Asylum on February 16th, 1865. Male; 60 years of age. Single. Farm labourer. For two years prior to admission had been an inmate of a workhouse, and is described as having during that time laboured under delusions, and was occasionally violent.

No hereditary predisposition existed as far as could be ascertained, and this was the first attack of insanity.

Mentally he had at the outset of the attack been very dull, and becoming more so, and very hypochondriac in his fancies. His bodily health had been tolerably good. He had been dangerous, but had not attempted or threatened suicide.

On admission he was found to be above the average height, well built, and in fair bodily health. Mentally he laboured under melancholia; was most dull and desponding. His memory was good; he could speak coherently, and answer questions correctly, but could not carry on a conversation owing to his always recurring to his bodily condition, which he described thus—that his belly was so much swollen that he could not take any food, that he never got anything through him, and that when he took castor oil it came away without moving his bowels. Nothing unusual was noticed as regards the state of his abdominal viscera.

April 1.—Mentally remains the same as at admission, is in better bodily health, works on farm. No one can speak to him, or ask him a question, without his saying, “I can’t get ought through me. Will you give me some medicine; I am about burstin’.” His bowels, however, are regularly moved, and he takes his food fairly.

July 1.—Little change at times; refuses his food, saying that he is “bunged up.”

October 1.—A short time ago refused his food for three days, and had to be fed once with the stomach pump.

Little change is reported to have taken place in the mental or physical state of the patient up to October, 1867, when he had again on several occasions to be fed with tube, owing to his persistent starvation on the ground that his intestines were full.

During 1871, on several occasions, he had to be fed.

In 1872 he was most miserable in mind, frequently contemplated committing suicide, and at least on one occasion attempted to strangle himself; he very much wanted to hang himself with his braces, and on several occasions tore his rectum and anus most severely, thinking that his passage was shut up. He went about the wards shouting that he had “forty days’ meat in his belly,” that he was “bunged up,” &c., and, if permitted, would spend most of the day

on the water-closet. A dose of medicine always produced an alvine evacuation of normal colour; but owing to the patient's dirty habits, and to the practice which he said he was forced to, and which he termed "howking himself," the form of his stools could not be accurately ascertained. During this year both his ears became slightly swollen (the insane ear), then shrank, and became much misshapen.

During 1873 he gradually got weaker, his body shrinking in, and altogether showing markedly the ravages of age. Mentally he continued as before; his memory good, when for a few minutes he would speak of any other object than his intestines. He frequently had to be threatened with feeding, in order to make him take sufficient nutriment. He on every opportunity implored the medical officers for aperient medicine, which for a considerable time he had been getting at stated intervals.

During the first half of 1874 he was, if possible, more miserable than ever, and at several times caused serious hæmorrhage from his rectum by "howking himself." On October 16th, having gradually got weaker, without any marked symptom of any special disease, he died; almost his last words were that he had forty days' meat in his belly.

J. W.—Autopsy 30 hours after death.

External Appearance.—Body most thin and emaciated; no marks of injury, but bed sore over right trochanter and sacrum; both ears shrunken, thickened, and misshapened.

Head.—Skull cup thick, soft, *diplœe* well marked.

Dura mater rather tough and leathery; arachnoid thickened and opaque; pia mater stripped cleanly off convolutions. There was an abnormally large amount of fluid under the membranes, and the convolutions were considerably atrophied. Section of brain showed it to be rather softer than normal. Sufficiently rich in puncta in some parts; at base of brain it presented a slightly reticulated appearance from shrinking of minute vessels. The floors of the lateral ventricles were studded with small granulations.

Cerebellum was soft; medulla very pink in colour. There were no granulations in the floor of the fourth ventricle.

Chest.—Both lungs slightly adherent by old fibrous bands. The lower and posterior portions of both lungs were in a state of considerable passive congestion. In the lower lobe of the left lung, at its outer surface, there was a large vomical containing dark grumous fluid, and on the pleural coat of the lung there was outside the cavity some deposit of grey tubercle.

Heart.—The coronary arteries were very atheromatous. The valves were competent. The mitral valves slightly thickened; muscular substance seemed normal.

Abdomen.—Liver normal, duct from gall bladder and pancreas patent. The gall bladder contained a considerable amount of thin bile.

Spleen soft, and dark on section.

Kidneys slightly fatty.

Stomach normal, contained some food; small intestine normal through its course; large intestine contained a considerable amount of rather hard, yellow faeces. The large intestine, 50 inches from the caput coram, and $2\frac{1}{2}$ inches above the sigmoid flexure, had a very constricted part 3 inches in extent (dried specimen shown), and $\frac{6}{10}$ th of an inch in diameter. Above the structure the gut was two inches in diameter.

The portion of gut below this to the anus was normal in calibre.

The weights of viscera were normal, with exception of lungs, which were abnormally heavy.

J. W.—Admitted June 22nd, 1868. Male; 61 years of age. Married. Agricultural labourer. First attack of insanity, no hereditary predisposition as far as known, but brother a patient in the asylum. No cause could be assigned for the attack. He is stated to have been insane for two months; previously he had been a steady, hard working man. The first mental symptoms noticed were great dulness, hypochondriacal fancies; latterly he had become worse, very melancholic, and suicidal. He complained much of abdominal discomfort, indigestion, and costiveness.

On Admission he was found to be a middle-sized man, old looking for age; his body was free of marks of injury; his tongue clean. Temperature 97° . Pulse 60. Skin and conjunctivæ slightly tinged yellow. Bronchitic rales heard over both lungs. Abdominal viscera seemed in normal state.

Mentally he laboured under melancholia, was most dull, and miserable; wringing his hands, complaining that he can get "nothing through him," "that his belly is much swollen," wishing himself dead, that he could be hanged, &c.

July 3.—Patient has been most miserable and dull since admission; if permitted would spend most of the day on the water-closet, trying to defecate; and even after his bowels have been cleared out by the action of medicine, persists that they are full, that he needs medicine, and, though not so noisy as his brother, goes about complaining, in almost the same words, that he is "banged up," &c.

I find that he continued in the wretched mental state described up to October, 1869. He had been treated with vegetable tonics and blue pill, frequently repeated. As it had been noticed that his stools were clay coloured, and as his bowels were very costive, aperient medicine had been given to him at intervals. In the beginning of October he took a severe attack of bronchitis, for which he was put to bed, and appropriately treated. He refused his food entirely on the 17th of Oct., saying that he was going to burst, he was so full that he could get nothing through him, &c. He was fed twice a day with the stomach pump up to the 24th of October, when, owing to his most exhausted state, his struggling to resist the feeding, and especially his having almost died

from suffocation by the accumulation of mucus in his throat during paroxysms of coughing while being fed, it was deemed unsafe longer to feed him. Enemas were given him several times a day, and small quantities of liquid food were taken by him by mouth. He sank, and died on November 2nd, 1869.

T. W.—Autopsy 41 hours after death.

External Appearance.—Body of middle-sized man; extremely thin and emaciated; abdomen discoloured by commencing putrefaction.

Head.—Scalp thin; skull cap dense in structure, diploe almost obliterated. Dura mater normal; pia mater thickened, and somewhat opaque. The whole brain was very oedematous. Fornix almost diffuent, and corpus callosum of either side extremely soft. The optic thalamus of left side was in a more softened state than the right. The cerebellum was abnormally soft and oedematous.

Chest.—Both lungs slightly adherent to parietes by old adhesions. Right lung very solid and heavy; on section the upper lobe was found of a light colour, and to have fibrinous and tubercular deposit through the lung tissue. The lower portion of the lung was much congested, and contained innumerable small points of tubercular deposit. The lower lobe of the left lung was congested and full of minute points of tubercular deposit; its upper lobe was slightly congested, and contained a few small deposits of tubercle. The bronchi were full of mucus and pus; lining membrane much congested.

Heart contained no clot; its valves were competent; its muscular substance pale and flabby.

Abdomen.—The œsophagus and stomach were normal; the latter was empty.

Liver slightly dark in colour, otherwise appeared normal; gall bladder very small and shrunken; its walls were very much thickened, it contained a little black bile. The gall bladder and pancreas had separate ducts entering to the duodenum, that from the pancreas entering lowest. The duct from the gall bladder was not patent at its termination; it ended in a *cul de sac* of the intestinal wall. The wall of the intestine was thickened at this part, and looked like an ulcer inside of the intestine.

Spleen appeared normal.

Kidneys normal. Intestines examined found normal. Clay-coloured fæces in large intestine.

The weights of the viscera were normal for the size of the body, with the exception of the lungs, which were very much heavier than normal.

Remarks.—The patients were brothers. The morbid mental manifestations made their appearances in each of the cases at about the same age. The brothers had not been living near each other, nor had they seen each other for some years until they met on the admission of T. W.

Though inquiry failed to elicit any history of hereditary predisposi-

tion in these cases, yet in the counties of Cumberland and Westmoreland much intermarriage has taken place, and during the year 1873 hereditary predisposition was known to exist in 42 per cent. of the cases admitted. In both these cases the mental state was almost identical both as to the primary symptoms and also as to the progress of the case. Great depression, suicidal longings, feelings of abdominal discomfort, and costiveness were the prominent symptoms.

In J. W.'s case the stricture of the large intestine appears to me fully to account for the mental phenomena; and in the case of T. W., the occlusion of the bile duct stopping the supply of bile to the intestines, and thus defrauding them of their natural stimulus, and also causing a certain amount of blood poisoning, seems to me an ample cause for an attack of melancholia. No doubt the patients were both advanced in years, which rendered them more liable to be affected mentally by their physical state. As to the visceral lesions, the stricture of the large intestine was in all probability the result of a dysenteric ulcer.

The occlusion of the bile duct was probably the result of some acute inflammatory mischief, but as most of the relatives and friends of both these patients were dead, or have left the locality in which they lived, I have been unable to get an account of their former bodily health, or a history of any former illness.

Nitrite of Amyl in Epilepsy. By JAMES A. PHILIP, M.B.,
Assistant Medical Officer, County Asylum, Gloucester.

The following notes of my experience of this drug may be interesting:—

It was tried in several cases, all epileptics of some standing, and in doses varying from 3 to 20 drops.

At first a chloroform inhaler was used, but an oil-silk cone, with blotting paper inside, was found more convenient. Three male epileptics inhaled twice a day, for about six weeks, beginning with three drops and rising gradually to 20 drops. In none of these cases did any benefit result.

In several other cases nitrite of amyl was used. I may mention the following:—

A male patient had a fit during the night, four before 11 a.m., an inhalation of amyl at 11 o'clock, and another fit at 3.30 p.m.

In a second case the fits were somewhat peculiar. He first uttered a humming noise, then began to run and jump about, shouting all the time and taking no notice of anyone. He soon fell down, and was convulsed for a short time, after which he soon began to return to his usual state.

He inhaled 5 drops, whilst standing with his head down, and wearing a confused, sullen expression. Pulsation of the carotids, &c., followed, and a sensation of sickness, which warned him of an approaching fit, passed off. However, in three minutes after, he had a fit of the usual character. He had several fits before and after the inhalation.

On another occasion he had a fit two hours before an inhalation, and another four hours after it.

Another patient had an inhalation at 10.30 a.m., after having had six fits that morning. Ten minutes after, he had another fit. Nitrite of amyl was again inhaled at 1 p.m., followed by a fit at four, and another at five o'clock, the same afternoon.

A female epileptic inhaled 5 drops with the usual physiological effect on the circulation. The fluid had nearly all disappeared when she lay back saying, "Oh, my—" and in three seconds began to slide gradually out of her chair until she came upon her knees. Her face had now become pale, her lower lip trembled violently, and her teeth chattered.

Tonic spasms came on, passed off quickly, and were followed by violent convulsions, and afterwards temporary insensibility.

The nitrite of amyl was tried in epileptic mania with no benefit.

An equally unsatisfactory result followed the use of chloral hydrate in a few cases of epilepsy.

In two cases having every night several fits, 25 grain doses were given at bed time, in whiskey and water. The patients had the fits as frequently as before.

PART II.—REVIEWS.

The West Riding Lunatic Asylum Medical Reports. Edited by J. CRICHTON BROWNE, M.D., F.R.S.E. Vol. iv.

This volume is made up of contributions by gentlemen, some of whom are connected with the Wakefield Asylum, and some of whom have never enjoyed that advantage. As it professes to be "The West Riding Lunatic Asylum Medical Reports," it would seem more fair to the former gentlemen, in our notice of this collection of papers, to confine our attention to their productions alone, thus letting them stand on their own very decided merits, and removing them from under the shadow of the great names that figure

as the authors of five of the twelve papers. It is true that we thus leave half the book unnoticed. A very cursory examination of the non-Wakefield portions, however, shows that the gist of them all can be got in the other writings of their respective authors, or elsewhere. It does not come under our province as a reviewer, but after reading the various papers we had a strong feeling, to which we cannot help giving expression, that had we been a Wakefield writer of an elaborate paper, containing the record of original experiments or observations, we should certainly not have enjoyed being relegated well on towards the end of our own reports. Scientific work is just as valuable when done by one man as another, and we do not like to see original work taking a place secondary to mere exposition, however interesting, forcible, or eloquent the latter may be. Were we the original investigator, we should be very apt to think that it implied a want of self-respect, and of a respect for our own work, to allow it to take such a secondary place. While making these remarks in favour of the native talent, we must not be understood to disparage the other contributors, whose articles are, as might have been expected, most interesting, readable, and instructive productions.

The first paper is one by Dr. Merson on "The Urinology of General Paralysis." After referring shortly to the researches of Drs. Sutherland and Beale, and those of Mr. Adam Addison—whose work on this subject has, we think, never got the credit or attracted the notice it deserves—he says that, in order to get a fair standard of comparison, he examined the urine of six healthy attendants in the Asylum, who were "under conditions of hygiene and diet similar to those existing in the case of the general paralytics to be examined." "These men were put on a diet of a fairly nitrogenous character. Their urine was then collected for three successive periods of twenty-four hours, and the absolute quantity of urea, chloride of sodium, phosphoric and sulphuric acids was determined each by careful volumetric analysis." A series of most careful and elaborate tables follow in reference to these men, and in reference to twenty-one cases of general paralysis in different stages of the disease. The urine of some of the latter was examined also when they were under the influence of Calabar bean and of alcohol. Altogether the investigation is a most complete and interesting one, and most creditable to Dr. Merson. The following are his conclusions:

1. The quantity of urea varies above and below the average of health, being in the majority of cases considerably increased. Probably also the uric acid is increased.

2. The quantities of chlorides and phosphoric acid are notably diminished; that of sulphuric acid remains about normal.

3. The specific gravity varies within wider limits than in health, but the mean does not differ materially.

4. The absolute quantity of urine passed is slightly below the average of the healthy cases examined, but, estimated according to weight of body, the amount excreted by seventeen general paralytics was slightly in excess of that excreted by six healthy men.

5. Under the influence of Calabar bean, there is a considerable diminution in the quantity of all the solid constituents, especially the urea.

6. The results obtained in the three cases treated with alcohol are in favour of the view that both the quantity of urine and the amounts of solid constituents are diminished under the influence of that substance.

We would suggest for Dr. Merson's consideration in future investigations into this interesting subject, that he should examine the urine of a few more cases at different periods of the disease in the same case, and also observe the temperature of the body at the time of examination, thus taking into more account two elements of the first importance.

Dr. Benham details the results of some experiments in regard to the "Therapeutic value of cold to the head." For some of them he used Ludwig's Strom-*uhr*. After some observations on the physiological effect of cold on the body, and its supposed remedial effects when applied locally, he relates some very elaborate experiments made by pumping hot water through the arteries of dead bodies, noting the temperature as indicated by thermometers inserted under the skull-cap, both before and after the application of cold to the outside of the head. Dr. Benham then experimented on living dogs and rabbits, on healthy men, and on one maniacal woman. His results are as follows:

1. Experiments I. and II. directly indicate that so long as a current of warm fluid is passing through the intracranial vessels, the application of intense cold to the external surface of the scalp has no effect in abstracting heat from the intracranial tissues of the dead body to which the cold is applied.

2. Reasoning by analogy, and taking into due consideration the results of Experiments III. and IV., it seems almost certain that the same holds good with regard to the application of cold to the living body.

3. That the application of cold to one part of the body produces a diminution of temperature reflexly in other parts of the body in symmetrical relation with it, as has been demonstrated by Brown-Sequard, is further shown by Experiment V.

4. This principle holds good when the scalp is the part to which the cold is applied, and the intracranial tissues those expected to be acted upon reflexly, as indicated by experiments III. and IV., in the latter of which the intracranial temperature fell 2° F. So small an effect, however, must be considered unimportant when we take into consideration the intense cold necessary to produce it.

5. That the effect produced on the body generally is no more than a scarcely appreciable diminution of temperature, is indicated by Experiments V. to X. on the human body, and by Experiments XII. to XX. on the bodies of animals. In one case only, Experiment VIII., is the decrease as much as 4° F., in all the others not being more than 1° F. to 2° F., and in all those experiments that were sufficiently prolonged, after the application had been continued for a certain time the temperature remained stationary for about ten minutes, and then showed a decided tendency to rise again.

6. That the application of cold to other parts of the body than the scalp has some effect, though less in degree, on the general temperature of the body, is shown by Experiments V., IX., and X.

7. That although the frequency of the heart's action was in most of the experiments decreased to the extent of from four to six beats in the minute, the strength of each beat, as indicated by the pulse, was slightly increased.

The therapeutic action of cold, when applied to the scalp, may be shortly stated, then, as follows:—It causes a slight lowering of the temperature of the intracranial tissues by reflex action; a slight diminution of the temperature of the body generally by the direct action that cold has in lowering the temperature of the stream of blood passing through the capillaries in direct contact with it; and a slight decrease in the frequency of the heart's action. All these effects, however, are so insignificant in degree and temporary in duration, that taking into consideration the violence of the remedy adopted, one cannot help thinking that a greater effect in the same direction may be more easily produced by other and less violent means, and the patient be saved the pain and discomfort of having his head shaved, and afterwards enveloped in a freezing mixture, as long as one may dare to continue its application.

Dr. Benham's experiments were ingenious and apparently carefully conducted, but there are many *non sequiturs* in his conclusions. His title is a misnomer, for his "therapeutic" experiments were confined to one case. We have seen a paroxysm of maniacal excitement completely subdued by cold applied to the head, the patient being meantime in a

warm bath ; and what does Dr. Benham make of the experiments in therapeutics which so many of his patients perform daily when they go and hold their heads under a cold water tap, and say they feel better for it?

The article by Dr. Herbert Major on the histology of the brain in senile atrophy, is a careful and methodical account of his extended observations on this subject, and on the whole they confirm the facts recorded by other observers. Much credit is due to Dr. Major for the systematic manner with which he has treated his subject.

He observes that all the cells become affected sooner or later, but that the pyramidal cells are affected most. The disease attacks the frontal and parietal regions to a greater extent than any of the other regions. The lesion of the cells consists of granular degeneration ; the first stage, as observed in the pyramidal cells, alters their size and shape, diminishes the number of their processes, and also the shape and form of the nucleus. The second stage consists of a deposit of granules either within the cell, on it, or in both places. These granules then break down, leaving spaces occupied by the nuclei, or by "a mass of particles." The nucleus in time also disappears, but the exact process of the disintegration Dr. Major has not yet observed. In the smaller cells, the lesion is one of atrophy, or shrivelling, more than of true degeneration. Regarding hypertrophied cells, the author states :—"We see that they may occur both in senile atrophy and general paralysis, while in both also they are of quite exceptional occurrence." From this statement we infer that he considers they only occur in these two diseases, which we cannot accept as correct, for the finest specimens of so-called hypertrophied cells we have seen in preparations made from the brain of a patient who died of acute melancholia. The arterioles and capillaries are found to be dilated, as also are the perivascular canals. The nuclei of the vascular walls are not greatly proliferated, but deposits of granules and of hæmatin crystals are frequent. The nerve fibres are coarser than natural, tortuous, and much broken up. The neuroglia is atrophied and wasted, the nuclei are altered in shape, increased in number, and frequently collected into small groups.

Three admirable lithographs accompany this paper, and Dr. Major concludes by stating that his observations apply to the gray matter of the cortex only.

Dr. Lawson contributes a paper on the "Hourly Distri-

bution of Mortality, in relation to recurrent changes in the activity of vital functions." He gives two charts, one showing the hourly distribution of 1,680 deaths in the West Riding Asylum, and comparing the result with Dr. Finlayson's results in Glasgow; and the other showing the distribution of the deaths at the West Riding Asylum over periods of three hours. Dr. Finlayson's maximum occurred between 9 and 10 o'clock a.m.; Dr. Lawson's between 8 and 9 o'clock a.m. The second table shows how very fatal the time between 6 and 9 a.m. was over every other part of the day. He also gives some general conclusions deduced both from his own experience and that of others:

(1.) That there are some hours which are associated with a great liability to death. (2.) That in acute and chronic diseases the maximum hours of death are widely different. (3.) That in chronic diseases a very large proportion of deaths occurs at a period which may be said to range through one hour before and one hour after 9 o'clock a.m. (4.) That acute diseases are characterised by two daily periods of marked mortality—the first in the dead of night, the second in the afternoon. (5.) That diseases grouped without distinction as to the duration of their course are distinguished by a maximum mortality rather later than that of acute diseases, and an elevated mortality corresponding with the maximum hours of death from chronic diseases.

Dr. Browne contributes an article on Acute Dementia, which is prefaced by a photograph, admirably executed; but the subject of which might be an epileptic or an idiot. The matter of the paper is arranged in the usual divisions of definition, etiology, etc., each of which contains something novel if not altogether entitled to adoption. We may venture, perhaps, to say that Dr. Browne's language is ornate and picturesque, but that there is some danger lest facts may be smothered by a too profuse employment of adjectives.

In the etiological section of the paper are to be found some novel ideas. This disease is stated to be perhaps the most independent of hereditary predisposition. Dr. Browne could only find a taint in three out of twelve family histories of patients labouring under acute dementia. In the remainder, there was, "as far as could be ascertained," entire freedom from it. The paucity of cases thus negatively examined, which Dr. Browne advances, prevents us from adopting his views on this point to the ousting of our previous convictions, which are founded certainly on the positive experience of not a few cases, and are in accordance with the

generally received opinion that it is one of the hereditary forms of insanity.

Monotony of thought and feeling, or mental inanition, is stated to be the one moral cause which is effectual. Dr. Browne traces the disease in numerous cases to the monotony of factories with their brick walls and "reiterative twining machinery," to the gaols and the treadmill, and to such conditions as are found in the naval service of the West Coast of Africa. He does not seem to believe in the efficacy of sudden and great moral impressions, unless preceded by marked physical prostration. He argues that such impressions act more powerfully on sensitive and mobile beings than on the duller and steadier, and consequently are not ready in causing the disease, because his patients are drawn from the latter class. This latter is an assumption hardly in consonance either with the facts of the stock-cases so often quoted—*e.g.*, the frightened apprentice of the Retreat, Pinel's joy-struck engineer—or with those of his own cases even; for two out of the three cured patients who are mentioned by him seem to have been lively after the attack. What must they have been before? We cannot entirely agree with him that physical misfortune is the chief avenue to acute dementia, though we quite admit that it is generally present, whether as a near cause or a concurrence we know not.

Following a highly elaborate delineation of the symptoms of the disease, well exemplified by four cases, comes a differentiation between it and its counterfeit—melancholia of the gloomiest description. To the latter, Dr. Browne applies the epithet "atonic" for no very apparent reason. It comes very dangerously near in sound to the word "attonita"—*thunderstruck*, which was originally applied, if we mistake not, to show the nature of the mental state. It would be absurd to suppose that the author means to translate this word as "atonia."

The broad pathology of the disease is, according to Dr. Browne, serosity in the pia mater. But his philosophy is scotched, if not killed, by an invitation to consider the following problem: "Now may it not be, to use a crude comparison, that acute dementia is dependent upon cerebral chilblains?" This is preceded by an indication of the fact that patients of this class often suffer from chilblains on the extremities. Now we must submit that chilblains, though often associated with extravasation, are essentially external

in origin, and a disease of the skin, not of the vessels; that they tend to ulceration and loss of substance by disintegration, whereas serosity or œdema in the cranial cavity is a *diseased condition* that usually results from loss of substance by atrophy. Had one of Dr. Browne's patients unhappily suffered from piles, he might just as well have made use of its presence to indicate the pathology of acute dementia. "Cerebral piles," indeed, would be as good a name. We think that the true pathology of the disease must be sought for in the brain-cells, and not in the vessels or circulation at all.

The treatment advocated is unexceptionably good—food, stimulants, exercise, occupation, and medicinal tonics, *e.g.*, quinine in large doses, iron, &c. To these he adds the use of the shower-bath for 10 seconds, and lastly, but according to his experience not least, the employment of electricity, of which he says: "I look to electro-therapy for a method of treating this disease more speedy and decisive than any that has been hitherto pursued."

The next article is one on ophthalmoscopic observations in acute dementia, from the pen of Dr. Aldridge. It shows that a large amount of good work is, in his hands, likely to lead to valuable results. He has already, with much effect, detailed the appearances in the eyes of general paralytics and epileptics. In this case, a *résumé* of the ordinary symptoms of the disease might well have been spared us, seeing that the editor has himself written a long paper on the subject. The only point we note in this preface is that the forced connection between "*Melancholia Atonica*" (so-called) and *Melancholia Attonita* is more apparent than in Dr. Browne's paper, as the present writer uses the following sentence:—"I refer to atonic melancholia, melancholia atonita (sic), or the *melancholie avec stupeur* of the French."

The first practical point is that both acute dementia and *melancholie avec stupeur* are accompanied by anæmia of the discs, and rules are laid down whereby to separate this state from atrophy.

The next, and to us the most important, point is that œdema is often present in acute dementia, but *never* in melancholia.

Again, Dr. Aldridge has found that the intensity of the œdema has kept pace with aggravation of symptoms in the former disease. He also states that where gusts of excite-

ment occur in the course of the malady, corresponding vascularity has been re-established only to recede when the excitement passes off.

These are very valuable facts, and with the exception of that of the alternation of vascularity and anæmia, are well supported by a series of cases recorded with most creditable minuteness.

The inductions from these cases, however, are not sufficiently elaborated to incline us to accept them forthwith, but we by no means consider that, with a little care, Dr. Aldridge will not make out the correct pathology of the disease, so far as it can be made out by ophthalmoscopy.

Dr. Benham concludes the list by a paper on "The Actions of Nicotine." He administered this substance to man and the lower animals, finding that it killed the latter, not by paralysing the heart, but by stopping the respiration. Indeed, he says it quickens and strengthens the heart's action, and recommends its use for that purpose. Another powerful weapon, truly, for the smoker with which to repel the attacks on his favourite weed. He found nicotine to contract the pupils, but its other effects on man were most variable.

The Elements of the Psychology of Cognition. By ROBERT JARDINE, B.D., D. Sc. Macmillan & Co. 1874.

This work, designed principally for the use of students, is offered as an introduction to the study of the psychology of the intellectual part of the human mind. The author hopes, however, that those who have already studied the subject will find something to interest them. We doubt greatly whether they will; nay more, we feel some doubt whether it is adapted to be a light unto the path of students. The book is certainly written in plain and simple language; the subjects treated of in it are lucidly, if not deeply, discussed; and there is no fault to be found with the tone of the author's criticisms. But we shall best, perhaps, indicate what we have found amiss in it if we say that we have met with little, if anything, in its contents which might not have been written a few years after Locke's death. It is one of a class of books which testify to their authors having read Locke, Hamilton, John Stuart Mill, and perhaps Herbert Spencer, and thereupon concluded that they had sounded all

the depths and shoals of mental philosophy. To writers of this class in England, it does not seem to occur that other nations have produced distinguished men who have laboured hard in psychology, and have put forth the fruits of their labours. Dr. Jardine's book supplies many instances of this ignorance. One example may suffice here. Having to speak of unconscious mental modifications, he attributes the doctrine to Sir W. Hamilton, seemingly quite ignorant that Leibnitz had treated of it systematically, and that it lies almost at the foundation of Beneke's Psychology; and in the few pages which he devotes to it, he refers to the so-called "unconscious cerebration" as the modern exposition of all that is known about it, seemingly quite unconscious of the exhaustive discussion which the subject has received in Germany from a succession of writers on psychology. Dr. Jardine should set to work to read the two large volumes on the "Philosophy of the Unconscious" (*Die Philosophie des Unbewusstsen*) by Dr. Hartmann, which have gone through several editions in a short time; and after having done that he should go through a course of study of Helmholtz's investigations into the physiology of the senses. We shall be much surprised if he does not then perceive that his book is something like an anachronism in this day and generation. He will hardly fail to realise that the whole aspect of many psychological questions has been changed, and may, perhaps, confess to himself that a book written for the use of students ill fulfils its aim by leaving them in ignorance of the new relations in which old subjects have been placed. We repeat that so far as the treatment of the materials with which Dr. Jardine has supplied himself is concerned, it is lucid and well adapted to the use of students; but the materials are sadly insufficient, and a student who should draw his knowledge of psychology from this book would be far from adequately instructed in the elements thereof.

Report on the Lunatic Asylums of Bengal, India.

The following are extracts from a very complete and interesting Report on the Lunatic Asylums of Bengal, India, by Surgeon K. McLeod, A.M., M.D., formerly a member of the Medico-Psychological Association :—

Population.—The average number of insane under confinement during 1870 was 1734·06 against 1651·7—1,594 and 1472·3 of 1869,

1868, and 1867. The number is thus an increasing one, the increase being more marked in the case of asylums of Bengal than of other provinces. No estimate of any value can be given of the insane population as compared with the general population, because the lunatics confined are probably but a fraction of the lunatics living, and the insane population is unknown, and the total population of provinces far from certain. The asylums show the same tendencies to grow which similar institutions do in other parts of the world. The residual population is relatively smaller than in the United Kingdom—that is, admissions bear a greater proportion to remaining and daily average strength. This fact tends to give more favourable results as regards cures, and less favourable results as regards mortality in Indian than in English asylums, because the basis of comparison is more fluctuating and acute; but as the asylums continue to grow by the accretion of chronic lunatics, the comparison will become a more fair one.

Admissions and Re-Admissions.—The number of admissions, namely, 926, is less than of the two preceding years—1,099 in 1869, and 1,015 in 1868—but greater than in 1867, when they amounted to 908. Re-admissions were, however, more numerous—63 against 37, 57 and 52—constituting also a larger percentage of the total, namely, 6·8 against 3·48, 5·9, and 5·8. The percentage of re-admissions in English Pauper Asylums is larger, namely, 13·6. The admission rate of asylums in 1870 was 53·9 per cent. of average population, against 66·5 of 1869, 60·5 of 1868, and 33·3 of English Pauper Asylums for the ten years 1860-69.

Sex.—Of the number admitted, 719 or 77·6 per cent. were males, and 207 or 22·4 per cent. females. The result in 1869 was 75 and 25 per cent.; and in 1868 78 and 22 per cent. These results contrast strangely with the following figures, taken from the Eleventh Report of the Commissioners in Lunacy for Scotland:—

		Average Proportion of Males and Females in 100 Admissions.	
English Asylums, ten years, 1858-1867	.	49·5 males	50·5 females.
Scotch " " 1856-1867	.	46·9	53·1
French " seven years, 1854-1860	.	53·0	47·0
27 years—average	.	49·8	50·2

giving the remarkably small difference of only ·4 between the sexes.

Of the total admissions, 698, or 75·38 per cent., were Hindoos; 210, or 22·68 Mussulmans; 16, or 1·73, Christians; and 3, or ·32, belonged to other castes. These numbers correspond very closely with those of the previous year, whose percentages were 70·30, 28·04 and 1·62. The proportions of the sexes belonging to each class were—Hindoos, 79·7 and 20·2 per cent.; Mahomedans, 71·4 and 28·6; and Christians, 62·5 and 37·5; thus the relative number of Mahomedan and Christian women admitted was larger than of Hindoo.

Discharges—The discharges from all causes (including deaths), and their percentage on average population, are shown on the margin, for the years 1870, 1869, and 1868. The average discharge rate of English Pauper Asylums during the ten years 1860-69 was 29·4, giving a rate of increase of 3·9. The result in the Lower Bengal Asylums for the five years 1865-69 is 56·7, giving a rate of in-

	1870	1869	1868
Discharges	812	1083	961
Rate per cent. of average strength...	46·82	65·55	60·28
Admission rates.....	53·9	66·5	60·5
Rate of increase ...	7·08	·95	·22

crease of 3·7. These figures show that the asylums of this Presidency are growing at nearly the same rate as English asylums, but that the changes among the population are more frequent.

Recoveries.—The recoveries of the year 1870 amounted to 405, or 23·3 per cent. of average strength; 16·00 per cent. of total treated, and 43·7 per cent. of admissions.

Mortality.—Deaths amounted to 284, or 16·37 per cent. of average strength, as shown in the following Tables :—

	PER CENT. OF	
	TOTAL TREATED.	DAILY AVERAGE STRENGTH.
Moydapore	18·42	33·41
Bareilly	18·73	27·9
Lucknow.....	16·6	24·5
Dacca	13·39	18·42
Benares	9·69	14·34
Jubbulpore.....	10·2	14·2
Lahore	9·6	12·7
Dullundah	8·21	12·61
Delhi	6·89	11·6
Patna	6·92	9·83
Nagpore	5·22	7·19
Cuttack	2·9	5·1
Average.....	11·25	16·37

Dysentery and Diarrhœa.—Next in order comes dysentery, which, with diarrhœa, accounted for 27 casualties. These diseases have always contributed a large share of the asylum mortality—about 20

per cent. of that of the six years in question. In 1870 the percentage is greater—25. It is hard to conjecture how much of this is a mere expression or feature of the general wasting and depraved nutrition, and how much a consequence of the specific causes producing these diseases in the same population; but the fact remains that “bowel complaints” rank second in the scale of fatal conditions.

Phthisis contributes 4·8 per cent. to the mortality of 1865-70, and 5·6 to that of 1870. This disease has always been thought to affect insane communities to a greater extent than sane. The average death rate per thousand from this cause on daily average strength in 1865-70 is 12·8. The same ratio among the prison population of this province for the five years 1865-69 is 3·92, and the percentage of phthisis among deaths is 4·95. The significance of the last ratio is disturbed by the number of deaths among the insane occurring from causes which do not affect the same.

Results of 1868-70.—When the results of all the asylums of the Presidency during the year 1868-70 are summarised, dysentery and diarrhœa together take the first place in the scale of mortality, giving an aggregate of 287 out of 1,102, or 26 per cent., each disease contributing almost an equal number. Next comes the cachectic states, asthenia, atrophy, anæmia, debility, dropsy, &c., giving 274, or 24·8 per cent. Brain diseases of all kinds furnish 200 deaths, or 18 per cent.; cholera, 97, or 8·8; phthisis and other scrofulous diseases, 65, or 5·; fevers, 50, or 4·5; lung diseases, 43, or 3·9; ague, 18, or 1·7; and accidents, 14, or 1·3; other diseases amount to 54, or 4·9. Among brain diseases a large number of persons die from epilepsy and epileptic vertigo.

Types of Insanity.—Of the total treated, 39·9 per cent. laboured under acute forms of insanity; 53·7 per cent. under chronic forms; and 6·4 per cent. were subjects of idiocy or imbecility. It will be observed that a greater relative number of females fell under the head of chronic mania, melancholia, acute dementia, and idiocy, while the proportion of males is larger under other heads.

Cause of Insanity.—Causes have been assigned in 44·59 cases treated, against 40·6 of 1869. Of the known causes, about three-fourths come under the head of physical, and one-fourth moral. Of physical causes Bhang and Gunjah are the most prominent, causing about a fifth of all the insanity under treatment in the presidency. Epilepsy and spirit drinking are also prominent as causes. Grief, distress, and loss of property, are the most marked among social or moral causes. In the asylums of Europe and America social and moral causes equal or exceed physical causes of insanity. (This is a mistake.)

Management.—Industry is the principal feature in the general management of Indian Asylums. The proportion per cent. of the inmates employed varies from 88·5 in the Patna Asylum to 17·09 in the Delhi Asylum. The modes of employment are various, but

principally digging, gardening, weaving, water carrying, oil pressing, domestic employment, &c. In most cases work requiring no particular skill is prescribed, but in some asylums handicrafts, such as carpentry, basket making, rope making, &c., are practised. In some asylums an endeavour is made to amuse the inmates, but this is not a general practice.

Classification is not so severely carried out as in the asylums of Europe; but its importance is recognised, and when means permit, it is carefully adopted. Solitary confinement and mechanical restraint are occasionally employed as means of treatment. There are no exact data to show the precise extent to which these methods are resorted to, but the written reports show that they are seldom used.

Dullunda Asylum, Calcutta.

Restraint.—A woollen bag is used to restrain lunatics; regarding it the Superintendent writes:—

“Its use is not confined to preventing a madman from damaging himself or his neighbours; it is constantly found to tranquillise excitement which yields to no other treatment; and this not by any terror that it inspires, or pain that accompanies it, but because it simply restrains mischievous movement, without causing discomfort or alarm. It is more gentle, safe, and strong than the hands of the best tempered attendants, and is thus the best preventive of one principal cause of fatal exhaustion in mania.

“I have never seen the smallest reason to regret its employment; but in the case of the man who died from violence, I have since regretted much that the bag had not been used. The current of opinion, though turning fast, has not yet set strongly in favour of mechanical—that is, passive restraint, as distinguished from the active, and often impatient, exercise of main force; so that even the most humane and successful contrivance of the kind is instinctively avoided as much as possible.”

Dacca Asylum.

The natives are very reluctant to have their relatives taken to a Lunatic Asylum, and, excepting the cases of acute mania, we seldom receive lunatics for treatment in the asylum during the early stages of their diseases, when, as is well known, our efforts are most successful. It is when insanity shows itself in its violent forms, and the lunatic is uncontrollable, or when the disease has so far advanced that he is no longer able to perform some share of the work of the household, or has become incapable of taking care of himself, that his relatives have him sent to the asylum, which as yet they regard rather as a place where troublesome or helpless lunatics are taken care of than as an institution in which the disorders of the intellect may, to some extent, be successfully treated.

Mr. Cutcliffe reiterates his belief that gunjah smoking and spirit

drinking are associated in the causation of insanity, and adduces data to prove his position.

Jubbulpore Asylum.

The lunatics are employed in weaving, rope making, gardening, digging, &c. The manufactured products obtain a ready sale.

Delhi Asylum.

The dietary is liberal, and sweetmeats and fruit are occasionally given as a treat. The lunatics are largely employed, principally in out-door occupations, weeding, oil pressing, water carrying, &c. Some of them were permitted to attend the Ram Lela and Dewallee melas in procession, dressed in their best, and the result is said to have been favourable. Pets—monkeys, pigeons, &c., are also kept for the amusement of the patients.

PART III.—PSYCHOLOGICAL RETROSPECT.

German Retrospect.

BY W. W. IRELAND, M.D., EDIN.

The German Retrospect is taken from the following works which I have received :—

Allgemeine Zeitschrift für Psychiatrie und psychisch-gerichtliche Medicin xxx Band ii, iii, iv, v, vi Heft, and xxxi Band, i Heft.

Verhandlungen der Berliner Medicinischen Gesellschaft aus den Jahren 1871, 1872, 1873. Band iv. Berlin, 1874.

Untersuchungen über das Gehirn Abhandlungen physiologischen und pathologischen Inhalts, von Dr. Eduard Hitzig. Berlin, 1874.

From the great interest and importance of the subject, it has been thought best to give a full report of Dr. Hitzig's book, though, owing to the limited space allowed for the German Retrospect, this must be done somewhat at the expense of other observers.

The first paper in the book was originally published in Reichert's and du Bois Reymond's Archiv, 1870, Heft 3. Hitzig commenced by advancing on behalf of himself and his colleague, Dr. Fritsch, their claim to have been the first to shew that the brain is susceptible to electrical stimulation. Fritsch and he experimented with a weak continuous current, which could barely be felt by the tip of the tongue, upon the brain of dogs and other animals denuded of the cranial covering and membranes. Electric stimulation of parts of the hemispheres produced combined muscular contractions of the opposite side of the body. One part of the convexity of the hemispheres of

the dog was thus shewn to be motor ; another part not motor. The motor part lies, generally speaking, in front ; the non-motor behind. On applying a quite weak current, the contractions are restricted to well-defined groups of muscles. If the strength of the current be increased, contractions are produced in other muscles, and even in muscles of the corresponding sides of the body. It is only by employing weak currents and directing them upon small spots, called for brevity motor centres, that one can induce contractions from particular gyri. The surfaces of brain between the different centres seem insensible to stimulation ; it either the distance of the electrodes from one another or the strength of the currents be increased, convulsions were caused which implicated both sides of the body. Drs. Fritsch and Hitzig indicated the centres for the muscles of the neck and for the extensors and adductors of the fore-leg, as also for the flexors and rotators. These are in the frontal gyri. A little behind are the centres for the hind legs and for the facial muscles.

The Anode gives a more powerful stimulus than the Kathode ; and when the current is weak it looks as if the Anode alone induced contractions. He rejects the idea of the electric currents being diffused through the brain and acting upon the nerves at the floor of the skull, observing that the current would at least act upon the nerves of the same side, they being nearer. He never observed currents to have been propagated to the medulla oblongata, nor to the near-lying motor nerves of the eye-ball. The diminution of nervous irritability following loss of blood is easily noted. Immediately after death the irritability of the motor centres of the brain disappears, while that of the muscles and nerves is still maintained. Another proof that electric currents are not conducted to the cerebral ganglia below, such as the corpora striata, is furnished by the existence of zones insensible to stimulation, lying around the motor centres. A slight shifting of the electrodes produces immediate difference in the effects. By inserting needles, insulated up to the points with gutta-percha, it was found that no muscular contractions were produced till they penetrated to the *crura cerebri*. Dr. Hitzig considers the existence of sensible muscular nerve fibres in the brain, as asserted by Schiff, would be an objection to the reality of his experiments, as the effects produced by electricity might be thus caused by reflex action. But he has repeated Schiff's experiments without gaining the same results.

The precautions taken to prevent reflex action arising from the sensitive *dura mater* seem satisfactory. The reflex convulsions so produced are always on the same side, not on the opposite side as when they follow stimulation of a motor centre.

Dr. Hitzig does not see how we can settle the question whether the motions are produced by stimulation of the cells of the grey matter, or of the conducting fibres. In no part of the brain can the cells be isolated from the fibres ; even in the cortical surface of the hemisphere there are still numerous fibres amongst the cells.

Dr. Hitzig removed in two dogs a portion of the nervous grey matter, about the size of a lentil, from the spot where the centres of the fore legs are believed to be, and closed up the parts as well as he could. The result seems to have been that "both animals only partially lost, through removal of a part of the so-named centre for the fore paw, the power to move it. The sensibility of the limb was probably not affected, but they evidently had a deficient consciousness of its position. They had lost the capacity to form complete representations about it. They suffered, too, from a symptom which is common in spinal disease, only here there was assuredly no injury to a sensory conducting nervous tract." This position might, perhaps, be more accurately described thus: "there will remain some channel of motor conduction from the mind to the muscle, but in the conduction from the muscle to the mind there was an interruption somewhere." Perhaps this interruption implicated the terminal seat of the supposed path of the muscular sense. In any case the interrupted part was at the spot of the brain where the vivisection was made. However this may be, it is certain that an injury of this centre only alters without abolishing the voluntary movement of the limb with which the central brain point stands in relation, and that other parts lie open to a motor impulse going from the mind to the limb.

Injuries to the centres whose stimulation causes movements in certain muscles are thus proved to injure the functional powers of the same muscles.

In opposition to Flourens and others, he concludes that single mental functions, probably all, in their entry into matter, or in their evolution from it, are referable to circumscribed centres of the cerebral hemispheres. It may be here observed that the author in this preface declares he neither wishes to range himself in the camp of the idealist nor of the materialist. The question whether reason is the product of an immortal soul or some other natural force he leaves to others.

Dr. Hitzig compares his vivisection upon the two dogs with the results of the study of the symptoms in a French prisoner who had been wounded by a bullet grazing the right side of the head.

This caused necrosis of a part of the parietal bone, extensive inflammation of the membranes, and a limited abscess of the brain in the lower part of the anterior central convolution, just where it passes into the operculum. The most noteworthy symptoms were twitching and loss of power of the muscles of the left side of the mouth and tongue, but never amounting to actual paralysis. This Hitzig explains by pointing out that the abscess implicated the centre of the muscles whose motor powers were diminished. "It is interesting," Hitzig observes, "to compare the motor disturbance in the wounded Frenchman, and in the dogs on whom he had extirpated the centre for the right fore leg. The man had a motor obstruction in the parts supplied to the facial nerve, which was complete, or nearly so, when he tried to

execute combined movements—laughing for example; but when his attention was directed to the muscles whose functions were injured, he could execute movements with them, showing that the impulse required was not so much obstructed as might at first appear—the desired movement was executed in some degree. How different is the state of the muscles in paralysis following injuries to the corpus striatum. But even in such cases the whole nerve is not generally paralysed, for the upper branch retains some of its power. The paralysed portion, however, loses its function completely, and if recovery follows it is only after the lapse of a considerable time.”

Dr. Hitzig at first believed that the imperfect action in the parts supplied by the left facial was owing to the man being unable to form any proper representation of what happened to the parts where the nerve was distributed. This would be the same as what was concluded to be the case with the two dogs on whom he had operated. Against this explanation it could be urged that it was precisely in the muscles which could be acted upon by the conscious will that motion was least affected, and that the greatest abnormality followed the more mechanical or involuntary action of laughing. Hence he concludes that “it is more probable that the impulse of volition framed for both sides in a third place for both hemispheres is taken up and propagated more weakly on account of the partial lesion, but that there was still cerebral substance enough remaining, if the motor impulse were made stronger, to bring the muscles into a well nigh normal action.” Dr. Hitzig then thinks that he has not reached the part of the brain where the impulse of the will to use the facial muscles comes into consciousness; but that he has traced the motor tract from the seventh pair back to the lower part of the anterior central convolution.

In the fifth article upon equivalent regions in the brains of the dog, the monkey, and the human being, Dr. Hitzig points out the difficulties of identifying analagous parts of the brain in animals like the dog and cat with those in man. But the resemblance between the simian and human brain is so close that corresponding convolutions can be pointed out with confidence. As monkeys in Berlin are dear and difficult to be had, Dr. Hitzig only succeeded in getting one for his experiments—a specimen of the *Inuus Rhesus*. On this little animal he tried to find out where were those cerebral centres which in the dog had been found to react through muscular motions under the influence of weak currents. The bone and membranes being dissected off from the parts, he found the motor centres which he sought in the gyrus centralis anterior of Ecker, the ascending frontal gyrus of Turner. About three millimètres from the middle line the centre for the lower limb was ascertained by experiment. Three millimètres to the side lay the centre for the arm, and about seven millimètres farther on along the same convolution was the centre for the nerves of the face; twelve millimètres farther on and six millimètres from the fossa of Sylvius were found the centres for the mouth,

tongue, and jaws. By using the induced current and shifting the electrodes to adjacent points, pronation of the arm, extension of the hand and fingers, and flexion of the thumb upon the two first fingers were successively produced. By irritating the centre for the muscles of the jaws and mouth, contractions of the masseters and movements of the lips were brought on. By acting on a spot immediately above the fossa of Sylvius, there was prolonged opening of the mouth; and in an adjoining spot was found the centre for the muscles of the tongue and those attached to the hyoid bone. These movements of the jaws, lips, and tongue took place on both sides from a stimulus applied only to one side of the brain. This he is unable to explain.

These motions were produced by the stimulus of a weak current of electricity; but the contractions of the muscles of the ear and frontal muscles required a stronger current, hence Dr. Hitzig thinks their cerebral centres are in deeper parts.

The author thinks the centres for the limbs and facial muscles in the dog correspond to the anterior central gyri in man and the monkey. If in the dog they appear to be more in front, this is owing to the smaller development of the frontal lobes, which in man have pushed back the central gyri behind the coronal suture. Dr. Hitzig calls attention to the numerous descriptions of cases where the frontal lobes of the human brain were almost totally destroyed without any injury to motion. He failed to bring out any muscular contractions by stimulation applied behind the posterior central convolution. As far as his information goes, Ferrier, in his experiments on monkeys, has found a greater surface of the hemispheres to be irritable, and has localised the centres in different places. In fact, Hitzig seems to show that the motor tract is confined to the two convolutions which are separated by the fissure of Rolando. He adds an analysis of seven cases of wounds and other lesions implicating the central convolutions of the human brain, followed by paralysis of the extremities or muscles of the tongue and face, and argues that the symptoms in their nature and order can be explained from the site of the lesion.

Dr. Hitzig gives as the result of this investigation that lesions of the upper part of the parietal lobe* are accompanied by injuries to the movements of the limbs, and that lesions of the lower parts of the parietal lobes are accompanied by injuries to the motions of the mouth and tongue.

Dr. Hitzig has a paper of fifty pages, containing an examination of the experimental researches of Dr. Ferrier. It is by far the most severe criticism to which Ferrier's claims have been subjected; but coming from a foreigner who complains of unfair

* Hitzig here, with Gratiolet and Bischoff, includes the anterior central convolutions within the parietal lobes. Turner and Ecker make the fissure of Rolando the boundary between the frontal and parietal lobes; consequently, by their arrangement the anterior central frontal convolutions belong to the frontal lobes.

treatment, cannot well be passed over. Dr. Hitzig accuses Dr. Ferrier of having given to the British public a too light impression of the value and precision of the experiments made by Fritsch and himself, and of using their observations as a foundation for his own without proper acknowledgment. He maintains that Ferrier had no right to claim the production of epileptiform attacks through electricity as a discovery of his own, or the serviceable observation that loss of blood diminishes the irritability of the brain to the electric stimulus. In reply to Ferrier's remark that Fritsch and Hitzig did not use the induced current to any extent, he replies that, if they did not use the induced current as often as the continued current, they at least used it in as many experiments as Dr. Ferrier himself did. Hitzig states that he was perfectly aware that contractions could be produced by faradisation, and that he said as much in his published papers. They made use of faradisation to bring out and compare the results obtained through the continued current. The latter form of electricity only produces one contraction, and that at the closing of the circuit. The results, therefore, require very close attention, but are less liable to sources of fallacy. In his investigations Hitzig sought for the weakest current which would give the strongest contraction, and he found that, if the strength of the current were increased, other muscles or groups of muscles were thrown into contraction. He objects to the use of faradisation as the only means of investigation for the following reasons :—Weak currents do not give defined results ; strong currents give epileptic fits, which very much disturb the investigation, producing extravasation of blood into the brain substance and injection of the pia mater. He thinks the interrupted currents which Ferrier used were in general too strong, and accuses him of not being sufficiently mindful of the laws of diffusion of the electric currents in unprismatic moist conductors. A layer of blood or serum may often transmit the current in an unlooked for direction, producing effects which on its disappearance cannot be renewed. He points out a number of instances in which he thinks Ferrier has indicated motor centres, while in reality the muscular contractions were owing to the electric current being conducted to other parts of the encephalon. He accuses Ferrier of basing inferences upon insufficient data, and on observations too few in number, indecisive in character, and performed upon animals whose cerebral irritability had become exhausted. Lastly, he doubts whether Ferrier, by means of chloroform, has succeeded as well as he imagines in overcoming reflex movements. His own results differ in many important particulars from those obtained in England. Ferrier makes nearly the whole brain irritable in animals, especially some frontal gyri and the greater part of the occipital and temporal lobes, while most of these parts are regarded by Fritsch and Hitzig as not affected by the electric stimulus. He observes that according to Ferrier almost the whole hemispheres of the cat must be motor, and no room is left for sensory, perceptive, or reasoning functions.

Ferrier gives several centres occasionally distant from one another for the same muscular groups. On the other hand, he claims to have set different muscular groups in motion by currents applied to the same spot of the brain. Hitzig regarded those places as centres from which he could cause muscular contractions with a weak current, but he never found more than one of such centres for each group of muscles. He advances that not only are Ferrier's results in opposition to those of Fritsch and Hitzig, but they do not even agree with one another. Amongst other examples of this species of contradiction he gives: in the place where the centre for the motion for the tail is located in the dog the brain of the cat is not irritable; where the cat wrinkles its eyebrows, and moves its ears, the brain of the dog is not irritable. By touching with the electrode analogous spots in the brain of the dog and cat, the one animal closes the jaw, the other pushes with the paw and stretches out the claws. Nevertheless the brain of the cat resembles closely that of the dog, the principal difference being that it is much smaller. Hitzig has repeated Ferrier's experiments a large number of times upon the dog, the cat, and the guinea pig, and there is great difference in the results which he obtained. It would be impossible to give a proper idea of the numerous special points of discordance indicated by the German physiologist without a literal translation and the reproduction of his plates.

Most of the experiments were performed without the use of narcotics, but occasionally a minute injection of muriate of morphia was used to subdue rigors. Tracheotomy was performed to stifle the cries of the animals.

Amongst other results may be mentioned that the centre given by Ferrier for the muscles of the tail in the dog seemed to Hitzig not irritable, save to a strong current (10 elements); hence he concludes that the contractions produced are the result of diversion of the current.

The convolutions of the frontal lobe seemed not to respond to the electrode save by conduction of the current elsewhere, or by reflex action caused by stimulation of the dura mater.

Ferrier, by applying the electrode to point 21,* Fig. 6, on the supraorbital convolution, caused drawing back of the head, opening of the mouth, and growling noises. Hitzig found no contractions to respond on application to the same point with a current of moderate strength. He supposes that Ferrier had unwittingly excited the first and second branch of the fifth pair, or that his electric current had affected points lying behind the place indicated by the number 21.

Irritation of the centres for the movements of the lips and closing the jaw causes the muscles of both sides to act; sometimes, as in the case of the zygomatic muscles, the contractions are stronger on the same side.

* See the West Riding Lunatic Reports, vol. iii., p. 52.

Dr. Hitzig performed no less than eight vivisections upon guinea pigs to overthrow Ferrier's conclusions, based upon one experiment, "that the vital irritation, consequent on exposure of the hemisphere, acted on the muscles of the opposite side of the body through the corpus striatum, causing tetanic spasm and pleurosthotonus," and asserts that the curving of the body to one side observed by Dr. Ferrier is in reality a symptom of paralysis. On reading over the passage in Ferrier's paper, it appears to me that Hitzig is probably wrong in his statement that Ferrier believed the symptoms described by him were purely owing to the contact of the air with the exposed hemisphere. He speaks of "the vital irritation of the surface of the hemispheres consequent upon free exposure;" but it is not likely that he would consider exposure to the air as the only source of irritation. Dr. Hitzig leaves very little credit to his adversary, as may be seen from the following translation of his concluding sentences, which in the original are printed in big letters:—"In one word, Ferrier has proved, by a method exposed to many objections, and in a quite superficial way, that through strong electric currents applied to the anterior and basal portion of the brain of the dog and cat, motions of mastication can be produced. In this his merit lies. On the other hand, he has not once found again with certainty the motor centres pointed out by us. He has given a number of results produced by electric stimuli either inconstant or applied in an erroneous manner. And lastly, he has adorned his work, without acknowledgment, with discoveries which belong not to him, but to us."

Remarks like these—and there are a good many quite as strong—will produce an unpleasant effect upon the centres of the brain of the Scottish physiologist liable to be irritated by hostile criticism. Ferrier will no doubt have something to reply; more ink will be spilt, and more dogs, cats, and guinea pigs sacrificed. Dr. Hitzig assures us he much regrets being obliged to undertake the ungracious task of pulling down investigations in the same walks of science; and the author of this retrospect takes no pleasure in the task of bringing a hostile critic into English grounds. But my part is simply to give in as short a form as possible what appears most worthy of notice, and most likely to be of interest, in this important book. Though a certain amount of selection is incumbent, I am neither required to endorse nor to contradict what is reproduced.

The ninth paper in the book is a lengthened inquiry into the derangements of innervation of the muscles and of our representations of relation to space following on galvanisation of the brain. It occupies sixty-five pages. Many experiments are cited, many questions asked, and many suggestions made, but as the author does not seem to have arrived at any settled conclusions, a *resumé* of his paper would be very difficult.

He investigates and describes very carefully the symptoms of

* West Riding Reports, vol. iii., pp. 34-35.

giddiness or vertigo which follow the passing of an electric current of some strength through the brain. This can be most readily produced by applying each electrode to the mastoid fossa directly behind the ear. Dr. Hitzig describes the whirling of visible objects during the passage of a strong current as resembling the appearance of a wheel circling from the side of the anode to the side of the kathode; on opening the circuit the motion is reversed. Sometimes the person feels himself moving with the head or whole body to the side of the anode on closing the circuit, or to the side of the kathode on opening it. He believes the danger of passing the continued current through the head to be greatly exaggerated, and knows of no cases where serious harm has resulted from its employment. Sometimes when too strong a current is used it produces a feeling of oppression in the occiput, sickness, and vertigo.

Dr. Hitzig examines at considerable length the nature and cause of the involuntary and unconscious movements of the eyes which followed galvanization of the brain. He rejects the idea that this motion, which resembles what is called nystagmus, is produced either by the influence of the current upon the nerves of the orbit or by its direct stimulus upon the muscles. In cases of paralysis of an orbital nerve, it does not appear to conduct the impulse. He believes the motions to be of centric origin. "It is not only possible," he remarks, "but to a certain degree proved, that arrangements exist in the brain by which fibres which at peripheral points belong to several nerves lie close to one another, and are accessible to a common stimulus." We seem, as it were, to have discovered continuations of nerve bundles even on the surface of the convolutions, and Dr. Hitzig found that by inserting into the brain substance needles insulated to the points by gutta serena, contractions of a different character were produced than those excited by superficial stimulation. He thinks that paralysis of the muscles of the eye can be cured by passing the current through the brain. At the end of the article there is a review of three works in which the phenomena of the sense equilibrium and other kindred questions are discussed. As space does not allow us to go farther into this question, we give the names of the works in case any student should wish to consult them.

W. Wundt, *Grundzüge der Physiologischen Psychologie* (Erste Hälfte).

E. Mach, *Physicalische Versuche über den Gleichgewichtssinn des Menschen*, reprint from the *Sitzungsbericht der Akademie der Wissenschaften*, Nov., 1873.

J. Breuer, *ueber die Function der Bogengänge des Ohrlabyrinthes*, reprint from *Med. Jahrbuch*, 1 Heft, 1874.

The book also contains two papers towards the comprehension of some anomalies in the innervation of the muscles. In the first of these studies Dr. Hitzig treats of the occasional phenomena of contractions in paralysed muscles. These contractions often last for

some time, relax during rest, and are brought on or increased by muscular actions of different parts of the non-paralysed members of the body. He regards these involuntary contractions of muscles in limbs more or less paralysed as combined movements. In the healthy body the use of one muscle requires adaptation of other groups of muscles; for example, if we bend the forearm we at the same time fix the chest; and the more force we put into the effort the more muscles do we call into combined action. In man the muscles are more under the control of the will, and there is less reflex action than in the lower animals, hence a lesion to the hemisphere in brutes is not followed by so severe and thorough a paralysing effect as in man. Those parts which execute the greatest variety of voluntary motions, like the arm and leg, are more frequently subjected to such contractions when paralysed. Their frequency, indeed, is in proportion to the amount of control habitually exercised by the will. The arm is more subject to such contractions than the leg; and the muscles of respiration are entirely exempt from them. Hitzig is disposed to explain the contractions as follows:—An irritated condition exists in the cerebral site of lesion, often consisting in the increase of the connective tissue; through this irritated condition in the centres for the co-ordination of muscular movements the distribution of the voluntary motor impulse is impeded, or directed to channels which in normal states it would not take.

In a second paper on the same subject, Dr. Hitzig describes some cases of facial paralysis which had been followed by epileptiform or irregular motions of different muscles; and from these cases he concludes that interruptions to the conductibility or continuity of sensory and of motor nerves lead in the human subject as well as in the guinea pig to states of irritation of certain motor tracts of the nervous centres. These states of irritation may be the cause of various symptoms, according to the degree and site of the lesion and the constitution of the individual. Dr. Hitzig observes that it has not been previously pointed out that the injury to motor nerves, such as the facial, may be the cause of abnormal movements or convulsions, and he thinks such effects are produced by the injured nerve carrying irritations backwards to the medulla oblongata.

Dr. Hitzig's researches on the functions of the cerebellum have been already noticed in the *Journal of Mental Science* (July, 1873, p. 295). In the book before us he devotes ten pages to investigations on the physiology of this organ. He has studied the subject by vivisection, the application of electricity to animals, and by passing the continued current through the head in man. It does not appear to me that his experiments lead to any very clear conclusion. Deep incisions into the cerebellum, as well as powerful galvanic stimuli, make the animal rotate with great vehemence towards the injured side; but the rapidity of these movements renders their strict observation more difficult than those following smaller injuries. These, says Dr. Hitzig,

cause the same movements which we have observed after extirpation of the flocculus. The animals lay themselves down upon the same side of the body as the lesion of the cerebellum; or if the lesion be more extensive the animal makes a series of forcible alterations in its normal position. Most frequently it throws itself out of any position in which it may be placed to lie upon the same side as the lesion of the cerebellum. If this impulse be very strong, it generally makes one or several rotations, and ends by lying down upon the side.

Dr. Hitzig has come to the conclusion that the rabbit which has received injury to the cerebellum has an impression that it lies upon the uninjured side—I suppose because the muscular sense on one side is destroyed—and that the violent movement to the opposite side is nothing else than a voluntary exertion to restore the apparently destroyed equilibrium.

Many other movements, however, take place after lesions to the cerebellum. The eyes are fixed or move about; and the position of the head and different parts of the body are rapidly changed in a great variety of ways. Sometimes the animal places the fore paws and one buttock upon the table, as if he had a defective notion of the position of the belly. In a note, Dr. Hitzig asserts his distrust of Ferrier's conclusions that the cerebellum regulates the motions of the eyeballs. He thinks Ferrier used too strong a current of electricity, and that it might have spread to the corpora quadrigemina. He admits, however, that nystagmus is frequently produced by irritations of the cerebellum. In the concluding article of the book, Dr. Hitzig gives some experiments which corroborate the view that injury to the grey matter of the hemispheres may be a cause of epilepsy. In a previous chapter he gave an account of two cases intended to show that epileptic or epileptoid attacks may follow wounds of the peripheral nerves. In fact, epilepsy may attend upon any kind of injury of the nervous system, central or peripheral.

In the "*Zeitschrift*," xxx Band, 6 Heft, Dr. R. Loechner gives a contribution to the localisation of the functions of the brain.

A man of 36, who had been already in the asylum at Klingenstein, afflicted with melancholia, with hallucinations in hearing, after being dismissed, shot himself in the forehead with a pocket-pistol. The bone did not appear to be penetrated, and no symptoms of local injury to the brain at first appeared; but about a month after he became completely paralysed on the right side, and could only utter the words ja, ja, although he seemed to understand what was going on around him. Two days after the paralysis being noticed, he was seized with convulsions, which only implicated the paralysed side. About a fortnight after this he died.

It was found on examination that three fragments of the inner table of the frontal bone above the crista galli had been driven in upon the brain, and had lighted up inflammation of the membranes and cerebral substance. There was an abscess of the size of a bean on the left

side in the second and frontal gyrus above two centimètres from the longitudinal fissure, and above three centimètres from the anterior central convolution. This abscess was connected with a larger and more deeply situated one, which lay under the superior and middle frontal convolutions (the first and second of Meynert). On the right hemisphere the cerebral substance was intact, save at a small spot on the superior frontal convolutions next the seat of injury, on the left side. The other parts of the brain appeared normal.

It does not strike me that the learned doctor succeeds in explaining the symptoms by a reference to physiological data. He says the mental functions were quite intact, and this with injury to at least one side of the frontal lobes. There was aphasia, but the third frontal convolution was not affected; there was loss of power of the muscles of the face, with occasional convulsive movements, but the motor centre of the facial, as given by Hitzig, does not seem to have been implicated. The central convolutions were healthy, but one side of the body was paralyzed. It is scarcely necessary to add that we have on record many cases of wide-spread destruction to the frontal lobes without paralysis of the limbs.

If paralysis were necessarily dependent upon injuries to certain defined portions of the brain, one fails to see why the function of these parts was not made out years ago.

Virchow has, in the "*Verhandlungen der Berliner medicinischen Gesellschaft*," contributed three papers of interest to the anthropologist. One is upon the "*Two-headed Nightingale*," a monstrosity which was exhibited in our own country, and described in the newspapers at the time. The learned professor describes these two sisters, who are united together in the lower part of the body, in his usual thorough manner. He mentions similar cases of which he has read. There is one noticed in Buchanan's "*History of Scotland*," in the reign of James IV., to which his attention has apparently not been directed. He has also a good account of the Russian hairy men, which have already been described in our medical journals. He reduces excessive growth of hair (*Hypertrichosis*) into three groups—

- 1.—Excessive hair growth of the masculine type in women.
- 2.—Hair growth upon nævi.
- 3.—The form where the teeth are deficient in number, whose peculiarities cannot be referred to any known pathological laws or conditions, but which perhaps might be, in some measure, elucidated by a pathological examination. He observes that most of the abnormal conditions lie in the parts supplied by the trigeminus, and thinks them dependent upon some change of the nervous system.

The third paper is on a curious case of hermaphroditism.

There are in the *Verhandlungen* some papers by Hitzig and Westphal, which have already been noticed, in one way or another, in our *Retrospects*.

In the xxxi Band, 1 Heft, of the Zeitschrift, Dr. Kelp has a paper on insanity in children. He reproduces the case of a girl, six years of age, who was admitted into an asylum, suffering from mania with convulsions, and complete aphasia. Though unable to utter a syllable, she could move the tongue and lips with ease. She passed into a shy, tearful condition; the symptoms of insanity soon disappeared; but she had again to go through the process of learning to speak like a little child. In five months she was dismissed, when she could speak fluently, though somewhat slowly.

Dr. Kelp gives the case of a boy of sixteen, afflicted with melancholia, who had attempted suicide, and had delusions of hearing. He recovered in seven months. The author also gives a case of *folie circulaire*, in a boy of thirteen. He was a dull child, and had been so often punished at school, on account of his slow progress, that he became deeply melancholy, and tried to kill himself. The melancholy alternated with mania, in which he whistled and sang day and night, tore his clothes, and was filthy in his habits. A case of this kind is very rare at such an early age. At a meeting of the Psychiatrischer Verein of the Rhine provinces, reported in xxx Band, ii Heft of the Zeitschrift, Dr. Feith gave an account of a boy of five years of age, who passed through a typhus fever which reduced him to a state of great weakness. On the 9th of December he was able to get up, but had lost, in a great degree, the use of his legs. His mental conditions seemed altered, and he was found to be aphasic. On the 31st of December his speech returned. He spoke almost without intermission the whole day, and could say everything he wanted. In a fortnight the ataxia of the lower limbs passed away, and the child became quite well. Dr. Feith supposes that, as a sequel to the hydræmia, there were small exudations in the brain, especially the second and third left frontal convolution, and in the spinal cord, which, on the health mending, had been reabsorbed. In a discussion which took place, Dr. Nasse declared against the view that aphasia was dependent upon disease of the left frontal convolution. Instances have been observed in which these convolutions had been destroyed on both sides without any aphasia; and in Behier's collection of cases, there were 122 instances of destruction of the left third frontal gyrus, and in 82 of these there were no aphasia.

Dr. Kind gave to the Psychiatrischer Verein Niedersachsens und Westphalens, reported in the Zeitschrift xxx Band, iii Heft, some statistics upon the height of idiots, collected from seventeen hundred cases. The general results are that idiots grow more slowly, and attain their greatest height at a later period than normal men.

In the same number of the Zeitschrift, is a report about an Institution for Idiots near Leipzig (the Kern'sche Idioten Anstalt), with a few cases illustrative of the success of the treatment pursued. There is a curious account of melancholia occurring in a girl as early as seven years of age, which passed away in her ninth year, after eight months'

residence in the Institution. Her intelligence also improved, but she remained simple-minded.

In xxx. Band, iii. Heft., of the *Zeitschrift*, Dr. Wille treats of the insanity of old age, which he reduces to several types. He distinguishes occasional insanity characterized by depression, altered habits, unsociability, indisposition to employment. It may be acute or chronic, end in recovery, or pass into dementia. Dr. Wille gives a full description of senile dementia, and mentions a great variety of symptoms. One of the most constant of the later symptoms is a failure of the senses; the patients become dull of hearing, their sight weaker, and they lose smell and taste. Another symptom he describes is the hand-writing, which is almost illegible, full of mistakes, whole syllables or words left out, sentences wrongly placed, and false constructions which give work to the lawyers. Too much stress should not be laid on this symptom, as I am sometimes quite bewildered by the interjection of clauses, and the cumbrous construction of sentences of some of the learned German writers, from whose works this *Retrospect* is prepared.

Dr. Wille gives the distinctive diagnosis between dementia the pure result of old age, and insanity appearing in the old, the result of dissipation, progressive paralysis, epilepsy, or softening of the brain. The most common lesions are calcification and atheroma of the arteries, and atrophy of the grey substance. The latter alteration is only to be found in the worst cases. Thickening of the membranes is found in one half the cases. The alterations seen through the microscope consist of the development of fatty granules in patches and stripes, especially at the bifurcation of the vessels. In the neighbourhood of the regenerated muscular walls, there are often accumulations of blood corpuscles, and numerous hæmatin crystals. This condition of the vessels leads to atrophy of the brain and fatty degeneration of the nerve-cells and vessels. Dr. Wille finds that the alterations in the tissues of the spinal cord, as viewed by the naked eye, as a general rule, agree with those in the brain. But this agreement did not hold good with the condition of the membranes, nor was it so common with the microscopical appearances.

Dr. L. H. Ripping, in the *Zeitschrift*, xxx. Band., iii. Heft., treats of the cystoid degeneration of the cortical substance of the brain in paralytic patients. He has studied this condition in five cases. He found numerous cysts, about the size of a pin head, scattered through the grey matter of the brain. In one case there was as many as from twelve to sixteen cysts in the square inch. In one instance, the surface of the hemisphere had a violet-red colour; in two others it is described as a greyish-red. Dr. Ripping thinks the cysts are made out of widened perivascular spaces, save in one instance, where the cysts seem to be too large for his hypothesis, and he is reduced to make them out of a part of the epicerebral lymphatic cavity. In all the five cases there were melancholia, hypochondriac feelings, and tendency to suicide. There were intercurrent fits of paralytic exaltations with

gross exaggerations in their conceptions, and aimless activity. In all cases there was paralysis of some parts of the body. In the fifth patient the state of exaltation was wanting.

The paper is illustrated by two engravings.

In the *Zeitschrift*, xxx. Band. v, Heft, Dr. Jehn gives the results of his studies of the eyes of insane patients through the ophthalmoscope, made at Siegburg and other places. He shows the apposition between the results of Bouchut and Dubuc, Köstl, Albutt, Tebaldi and others, which must render one who has not made original researches on the subject very doubtful as to the exactness of acquired results. For example, Albutt found in cases of mania 43 per cent. where alterations could be observed under the ophthalmoscope. A similar result was obtained in dementia. Tebaldi, on the contrary, found in idiopathic acute mania no permanent alteration of the posterior chamber of the eye. In progressive paralysis Albutt and Tebaldi agree in finding a diseased condition of the optic nerves, leading to atrophy almost constant. Galezowski observed atrophy only in one case out of forty, Gräfe and Westphal in two cases out of fourteen.

Dr. Jehn's results cannot, of course, agree with those of observers who disagree with one another. In seventeen cases of mania, for example, he could only find one case of diseased condition of the retina. This consisted in venous congestion and tortuosity of the vessels. He, however, remarks that in his seventeen patients there were no symptoms of meningitis, which were believed to be present in the cases studied by Albutt.

Dr. Jehn would have wished more numerous cases of epileptic insanity to study. His own results do not agree with those observers who found dilatation of the arteries and contraction of the veins, with venous pulsation, the characteristic alteration of the eye in epilepsy.

Those who have studied the question agree that the so-called white atrophy of the optic nerve is by far the most common alteration in general paralysis, though they differ as to its degree of frequency. In seventeen cases of general paralysis examined at Siegburg by Drs. Saemisch and Mandelstamm, they found two of double, one of single atrophy of the optic nerve. Twice there was commencing atrophy, and once a pale colour of the papillæ, probably depending upon degeneration of the nerve substance. Out of thirty-four eyes examined, twenty-six shewed no alterations which could be connected with the morbid condition of general paralysis. In thirty cases examined by Dr. Jehn himself, two had atrophy of the optic nerves on both sides; two others on one side; another had excavation of the papillæ. In five cases, although the vision did not appear to be much impaired, atrophy of the optic nerves was suspected, on account of the pale colour of the flat papillæ, which shewed no indication of the lamina cribrosa. The other alterations noticed were complications from distinct diseases. Dr. Jehn regrets that we have not succeeded in

establishing a relation between the alterations in the retina observable through the ophthalmoscope, and the types of insanity, such as mania, melancholia, delusional insanity, which are mere generalizations derived from the study of mental symptoms. It may be remembered that we have not yet succeeded in finding alterations of the brain itself to correspond with these definitions. In the present state of our knowledge, Dr. Jehn thinks ophthalmoscopic examination most likely to yield results in deep seated disease of the brain, cerebral tumours, and many cases of chronic meningitis.

In the same number of the *Zeitschrift* there is a report taken from L'Ippocratico, of the results of the investigations of L. Monti in 200 cases, at the asylum of Pesaro. He found that

1—Ophthalmoscopic observation in general gives very often a negative result.

2—In mild cases of mania and melancholia, especially in the last, the results are negative. In some cases more severe and accompanied by symptoms of considerable excitement, congestion of the papillæ and retina is observable.

3—In melancholia stupida, or attonita, the serous papillary infiltration is most common.

4—In cases of simple dementia there are more positive results, serous papillary infiltration and congestion of the papillæ and retina being not unfrequent.

5—The same alterations may be found in progressive general paralysis.

6—The ophthalmoscopic examination of the eye in idiocy does not lead to any indication throwing light upon the state of the encephalon.

Dr. E. Mendel, in the "*Verhandlungen der Berliner Medicinischen Gesellschaft*," has a carefully matured article upon the treatment of melancholia, with an account of some cases. I take advantage of his recapitulation of the results obtained.

1—In a number of cases of chronic melancholia, thickening of the pia mater covering the occipital lobes, the result of stases of the blood, was observed.

2—Hyperæmia is peculiarly liable to bring about melancholia. The great majority of pathological alterations in the different organs are at first accompanied by hyperæmia, and this holds good with the brain, though the mental manifestations of melancholia often mask the other symptoms of brain disease.

3—The good effects of morphia are accompanied by a diminution in the temperature of the external auditory meatus. This seems to go along with changes in the condition of the brain.

4—In those cases where morphia has a curative effect, there are a series of indications of pressure on the brain, which may occur either together or separately. The dilatation of the pupils is unequal; there is loss of power of the facial nerve, and deviation of the tongue and of the uvula. Where these symptoms fail morphia does no good.

In hysterical melancholia this drug often does harm. In such cases Dr. Mendel has recourse to alcohol and tincture of quinine, from which he has often obtained favourable results. Dr. Mendel, on the whole, much approves of the use of morphia in melancholia. It often averts the progress of the malady at the outset, and lessens the misery of the symptoms where it does not wholly remove them.

Moritz Meyer, in the "*Verhandlungen der Berliner Medicinischen Gelleschaft*," gives an account of four cases of exophthalmic goitre, in which great benefit was derived from galvanization applied to the sympathetic nerve; the one electrode was applied to the sub-maxillary region, the other to the closed eye, or to the goitre on the opposite side, and a weak current kept up for two or three minutes. The number of applications required was above sixty. The exophthalmus and the size of the goitre diminished, and the general health improved. In one case the menses returned after having been absent for nearly four years. There was no diminution of the frequency of the pulse, or in the force of the heart-beat and palpitations, as had been noticed by Dusch, Eulenburg, and Gutmann, who have recorded the results of the same medication.

The large amount of space allowed to Hitzig's investigations has compelled us to shorten our reports of the other contributions in the periodicals before us, many of which are well worthy of perusal. Amongst these papers are two articles by Dr. Flemming in the *Zeitschrift xxx. Band*, 4 and 5 Heft, in which he examines, at considerable length, the subject of delusions, dreaming, the delirium of fevers, the result of sunstroke, toxic insanity, such as pellagra and that resulting from Indian hemp.

In the same journal, *xxx. Band*, 2 Heft, Dr. Tigges has a paper upon the reaction of the nervous and muscular system in the insane to electricity, written in his usual careful and thorough-going manner. In the same Heft Dr. Scholz treats of feigned insanity.

In 3 Heft, Dr. H. Reimer gives us his views on the Therapeutical Treatment of Mental Excitement.

In 4 Heft, Dr. Gutsch writes upon the difficult question, What to do with our Criminal Lunatics, and Dr. Zenker upon Intermittent Respiration in Insanity. Dr. R. Schröeter (5 Heft) treats of Menstruation in its relation to Insanity.

In *xxxi. Band*, 1 Heft, there is a paper on Legislation for the Insane, with especial reference to the French law, and another upon Suicide in the Asylum of Leubus, by Dr. Fröhlich.

In the same Heft, Dr. Ripping gives the result of his visits to some English asylums. Dartford, Haywards Heath, Brookwood, Moulsham, Whittingham, and Broadmoor are reviewed in the present number, and a continuation is to follow. Dr. Ripping seems favourably impressed with what he saw of the English asylums.

*Public Asylum Reports for 1873.**(Continued from page 471.)*

GLAMORGAN.—*Ninth Annual Report.*—A Turkish bath has been instituted here. The Visiting Commissioners attribute the freedom from accidents during the night to the attendants sleeping in the dormitories with their patients, an arrangement which is still the rule at Bridgend.

The following remarks occur in the Superintendent's report. Some people might say they are a little uncharitable in tone.

There is a remarkable variation in the proportion of recoveries as given in the Annual Reports of different asylums, and comparison is apt to convey erroneous impressions. While the number of recoveries in any asylum must depend chiefly on the nature of the cases admitted, and may depend somewhat on the skill of the physician, the number of *tabulated* recoveries depends greatly on the views he may entertain as to the condition which deserves that pleasant name. A case of idiocy with epilepsy was once boldly styled a recovery because the child had recovered from an attack of fits under certain treatment. If this principle were adopted, and recovery meant only restoration to the condition which preceded the recent attack, or if it meant merely a condition in which no one unacquainted with the patient could sign a certificate of insanity; or, again, if the name could properly be given to the complete, though temporary intermission in recurrent cases, the proportion of recoveries here would be very different indeed. A person who is legally certified to be of *unsound* mind has not fully "recovered" till he can be certified to be of sound mind, and equal to all the responsibilities which that implies. If this standard be once departed from, the proportion of "recoveries" may rise to any amount. However pleasant it may be to tabulate a large portion of recoveries, it is better to be strictly accurate, and to enter as "relieved" all patients who cannot be thus certificated, even although they may be able to gain their own livelihood, and may be regarded as recovered by their friends. I strongly approve of the discharge of *partially recovered* patients who are not likely to derive further benefit from asylum treatment, whenever the circumstances give any prospect of their well-doing, but in recording the results of treatment absolute truthfulness is far more important than apparent success.

Whilst we must perforce agree to all that is said here by Dr. Yellowlees, we may, as an illustration of the difficulties not being fully got over by the suggestion that a man has recovered when he can be certified as of sound mind, refer to the case of the criminal lunatic cited by Dr. Gilland (*see notice of Berks' Report*), who was certified by two medical men as of sound mind, was held apparently by Dr. Gilland himself as equal to the responsibility of being tried as a criminal, and yet, as we read the context, was no more sane than on his admission.

We should like to impress the following opinion of Dr. Yellowlees and of ourselves on the magistrates of Middlesex:—

This addition, and other changes connected therewith, will increase the total accommodation of the asylum to about 570 beds, and I beg again to express my strong opinion that it should not be further enlarged. Individual attention and personal knowledge of each case are essential for proper treatment, and the character of the asylum as a hospital for the insane will be lowered when this

becomes impossible. Some provision should, therefore, be made for removing or separating the chronic incurable cases, which require care rather than treatment, so that the asylum may retain its true character, and that the recent and curable cases may not be overlooked or forgotten amid a great crowd of incurables.

We have with this report, as a separate appendix, a paper by Dr. Yellowlees on "Insanity and Intemperance." This has been read before the British Medical Association, and printed in the "British Medical Journal," and is noted in our English Retrospect. The portion—the larger portion—devoted to the forms of insanity depending on intemperance is admirable, and does not leave much of importance to be said; but the introduction to the paper demands closer attention. The *fact* stated here is that during two periods of respectively three and six months the male admissions fell by one half, and that these periods corresponded with the periods of strikes in the iron and coal trades of Glamorganshire. The conclusion drawn by Dr. Yellowlees is, that money being scarce, intemperance ceased, and with it insanity markedly diminished. This may be so, but there are at least two steps between the fact and the deduction, over which Dr. Yellowlees does not clearly show us our way.

In the first place such fluctuations in the admissions are common to all asylums, and these may have been quite accidental fluctuations—that is, quite accidental as concerned the strike; and, secondly, if the diminution depended on the strike, was intemperance any intermediate factor? May it not have been simply that the men had more time to attend to their insane friends, and so were enabled to keep them at home. What we want is a statement of what were the forms of insanity which were absent. We see that the male admissions at Glamorgan for 1871 and 1873 (the years containing the strike periods), though less than for 1872, are both larger than the previous average, so that there is some ground for supposing the defect to have been an accidental fluctuation.

The following extract from Dr. Sherlock's report tends quite in the opposite direction from Dr. Yellowlees' conclusions, showing that prosperity brings, if not at once, yet after a season, knowledge to use it, and being from facts spread over several years, is less open to doubt than those from Glamorgan.

The accompanying return shows the sources whence the admissions of the year have been derived. It presents no very marked difference from that of the preceding year, and the number of patients received from the larger unions of this county and city closely approximate; but on comparing this return with that for the year 1871 very important reductions, in respect of the number of admissions from the unions containing a manufacturing and commercial population, are perceptible. The purely agricultural unions show less deviation in the number of those sent to your asylum for care, and indicate less change in the surroundings of their community. It is, therefore, a matter of reasonable supposition that the activity of trade and the larger earnings of the working classes, together with the more efficient control and supervision of houses where intoxicating drinks are sold, added considerably to the material prosperity of the people, and prevented much of that privation from poverty and dissipation which, in a very large number of persons so circumstanced, culminates in bodily and mental disease.

The following remarks by Dr. McCullough, from the Abergavenny report, refers to this subject :—

In the adjoining county of Glamorgan attention has been called to the fact that during the last six months of 1871 and the first three months of 1873, when the mines, and consequently the docks, were deserted on account of strikes, the admissions of male patients into the county asylum fell to half their usual number, the female admissions being almost unaffected, and the natural inference was drawn that the diminution was due, as the decrease in drunkenness and crime no doubt was, to the want of money to spend in drink and debauchery. As these strikes affected Monmouthshire almost equally with Glamorganshire, and in the last strike especially, when the 60,000 men "out" were divided almost equally between the two counties, I have examined the male admissions into this asylum during the two periods. In the former there was no marked difference in the admissions during the first and second halves of 1871; and in the latter there was, instead of a decrease, a considerable increase in the male admissions of the first three months of 1873, whether compared with the preceding three months or the corresponding periods of previous years. My experience, therefore, does not bear out the inference that has been drawn in the other portion of the district affected by the strike, but is rather at variance with it. The causes of insanity are many and far-reaching, and in but comparatively few cases can an attack be traced to a distinct recent cause. One case seemed clearly due to the strike. A man who had come a long distance in the expectation of high wages, found he could get no employment, and having left a wife and children at home, depending on him, he became depressed, and was for some months in the asylum.

It has been suggested that Glamorganshire shipping much more coal than Monmouthshire (ten to twenty times) possesses a large population of coal trimmers, and others engaged in this business, whose habits render them even more likely to be affected by enforced sobriety than the colliers themselves.

If this be so, an analysis of the occupations and residences of the admissions would at once show it; whilst, as we have already said, an analysis of the forms of insanity that were absent would show whether intemperance was the causative agent in abeyance.

Unless such an analysis shows the deficit to be due to the absence of cases of *Mania d potu*, *Delirium Tremens*, and other forms of Insanity due to recent drinking, the hypothesis breaks down; as most cases of insanity, like other diseases, result from causes long in operation, and the cases presented in one six months probably find their causes acting during the previous six months or often years.

NORTHUMBERLAND.—*Reports and Accounts for 1873.*--Without desiring that dead level of uniformity in the asylums themselves, which would be so insuperable a bar to all progress, a uniformity in the reports is desirable in order that the differences in the asylums themselves may be readily grasped and compared. The large quarto form in which this report is given is very objectionable; Norfolk is nearly as bad; it will not range on shelves with the other reports, and is therefore very unhandy for comparison, although its contents are in a form that would render it a good pattern for not a few other reports. We recognise that a break from the present size to an octavo, like nearly all others, would present for Northumberland itself the same evils that

we are deprecating, notwithstanding which we think the change so desirable that we have mentioned it here.

The death of Mr. Wilson deprives us of the superintendent's report.

The Visiting Commissioners are sorry to find that since the suicide of a female patient in the river the distant walks have been discontinued, and no one now goes beyond the asylum precincts. It does not appear whether this change was by order of the superintendent or visitors. If the latter, they might advantageously peruse Dr. Parsey's remarks on a case of suicide at Warwick, or Dr. Deas on escapes at Macclesfield.

STAFFORD. — *Fifty-fifth Report.* — BURNWOOD. — *Ninth Report.* — As there is little to remark in these reports we may take them together. The high death-rate at Stafford is noteworthy from a statistical point of view. We remarked in connection with Hanwell on the uselessness of calculating the recoveries on the average residents. Here we should, to get a trustworthy ground of comparison with other asylums, have to calculate the death-rate on the admissions. From the large number of chronic cases transferred there is a number of admissions large out of all proportion to the average number resident, and these have probably the usual proportion of rapidly fatal cases. This is further illustrated by the fact that the recoveries exceed the deaths in much more than the usual ratio. The deaths due from the transfers are absent, the average number resident being at the same time reduced in greater proportion, chronic cases having a mortality of only about 5 per cent.; recent admissions 15 to 20 on the average numbers.

WARWICK. — *Annual Report for 1873.* — As we have just referred to Dr. Parsey's comment on a case of suicide, we append it:—

"Here with a population, if it may be so expressed, teeming with suicidal propensities, but one out of every 380 of the deaths, or, including the doubtful one just mentioned, one in 253, has resulted from this cause, whereas of the deaths registered throughout England and Wales in the year 1871 suicides numbered one in every 344; and as among the counties of England and Wales Warwickshire has the unenviable notoriety of being one of the most suicidal, I hope you will feel yourselves warranted in accepting the deduction, that results do not indicate a want of proper vigilance on the part of those engaged in the care of this, perhaps the most anxious, section of our inmates.

A hypercritic, who does not appreciate the full force of the argument, will at once retort, "But you ought to have no suicides at all. Everything you require to obviate it is at your disposal, and no such event should occur." The logical cogency of such a retort must be admitted, but it should be remembered that you have really done all that could be expected of you when you have brought an insane population to the level of the sane in any matter which their insanity renders them in danger of, and to do more implies an amount of restriction and coercion absolutely unjustifiable; indeed, we firmly believe that at present with the large number of nearly harmless

demented cases now in asylums, to have classed whom with madmen would, fifty years ago, have raised a smile of derision, the protection of the few is gained at the expense of a wholly unnecessary amount of restriction on the many.

Dr. Parsey notes an unusual run of ill-luck, but denies us the details.

"This death from self-destruction did not, however, come as a solitary trouble on the asylum. As with suicides, so with serious accidents; we have, as a rule, enjoyed an immunity from them quite equal, I believe, to that of other large asylums in which no vigilance can entirely prevent such occurrences among a population containing so large an element of impulsiveness, irresponsibility, and more or less helplessness. We had passed through nearly eleven months of the year with only one troublesome accident, when, in the course of less than five weeks we had, in addition to the one commented on, a succession of seven—one to an attendant, the rest to patients, and all of a more or less grave character. Anything of the kind has never before been experienced in the asylum, and it is a great satisfaction to me, as its responsible head, that your Committee regard them as unavoidable, and attaches no blame to the officials in charge. No doubt there has been an unusual strain put upon the attendants by the rapid influx in the latter half of the year of unfavourable male admissions, but the majority of the accidents were quite independent of these influences, and such as are necessarily incidental to asylum life, only they would be expected to be scattered over a period of years instead of weeks.

It would appear that the idiot branch asylum is nearly a failure from want of proper material.

Returning to the admissions, I regret to have to state that those of idiots have not been at all equal to what was hoped would have followed on the erection of a building for the separate care and training of this class, and that of those admitted in the past year only two have been under sixteen years of age—that is the period of life when there exists hope of effecting mental improvement in habits and intellectual development—and of these two one at ten is dumb and unable to walk, or even put his feet firmly to the ground. Of the ninety-one idiots now under care, only seventeen (twelve males and five females) are under sixteen years old, and of these eight (in addition to twelve adults) are dumb, and five (in addition to seventeen adults) are epileptics, complications most adverse to successful training. And on the whole it appears that the asylum for idiots is as yet looked upon by the union authorities merely as a receptacle for the most degraded of this class—those who are simply too great a burden on the resources of the workhouse staff to be longer retained there. Under such circumstances great results cannot be attained or expected here; and our work may, in many instances, be summed up as consisting in the endeavour to correct vicious, repulsive, or dirty habits, and enforce cleanliness, to induce some degree of attention and self-respect, and to improve bodily health. Still, the effects of their training are not in all instances of so bald a character.

One female patient made her escape three times during the year, and twice did so in combination with another patient, though not the same one. This combination among the insane is extremely rare, and seldom occurs except in those whose moral nature is more affected than their intellectual faculties. This patient, at the age of 18, was sent to the Chester Asylum as a criminal patient, having been found to be insane while undergoing imprisonment for theft. She had already been several times in prison since the age of 14. Her moral faculties were terribly defective, and since she came here in 1871 has at different times been a most troublesome patient; and yet sometimes for months together she will behave with perfect propriety, and be of great use in assisting the nurses.

Twice she has been sent out on trial, but on both occasions it was found necessary to send her back. In planning her escapes she displays great cunning and ingenuity, and when really bent on getting away will elude all vigilance. The two patients in whose company she escaped were both of a similar class to herself—of low moral perceptions, and decidedly of the criminal class. On the first occasion the two, having contrived at odd moments to loosen the beading of a window, at length, when unobserved for a few minutes, pulled out the sash and so escaped. On the second occasion, two months later, the patient with whom she escaped before broke, at her suggestion, a window frame in the ward dining-room after tea (having previously blown out the gas), and she then escaped with another patient. Her companion on her previous trip had arranged to go a little later in company with a fourth patient, but the absence of the first two was discovered in the meantime. This patient has escaped now eight times in all, and on four of these occasions in company with another patient.

Altogether, during the past year, 7 women have made their escape; two of whom did so twice, and one three times; 11 men have escaped; one on two occasions.

I have alluded to this subject thus fully, and described what I may call different types of these incidents, because, from a letter written by a magistrate of this county to the Manchester papers in the course of last summer, some people seem to have most extraordinary ideas upon this subject. The writer seemed to think that because escapes took place from an asylum, that asylum must be badly managed; and that the Cheshire asylums were exceptionally badly managed because in their accounts there was a larger item for Recapture of Patients than in another asylum picked out for comparison! So far from this idea being correct, *à priori*, I should be inclined to consider an asylum badly managed from which escapes did not take place. Under the modern system of treating the insane, self-control and self-respect are cultivated as much as possible, and by being judiciously trusted a patient is ultimately taught to trust himself. To this view of treatment a certain amount of liberty is essential, and it would be manifestly unjust and irrational to restrict the liberty of all the patients on account of the propensities of a few. By means of bars high walls, constantly-locked doors, and never trusting a patient in any way, escapes could soon be abolished. We try to insure the proper care and safety of the patients by means of intelligent supervision; and though vigilance will slumber or be evaded sometimes, it is better to run the risk of this than to fall back on irksome restraint and irritating restrictions. The latter would be, perhaps, the easier system, and entail less responsibility; but the advantages of the "free system" amply make up for this, and also for the risk of an occasional escape or even accident. The cases that, under this system, cause real trouble are those of Moral Insanity, to which I have alluded, who, from their low moral faculties, and the cunning, ingenuity, and power of combination which they display, almost need to be treated as criminals; and on whom, as a rule, the kind and forbearing treatment generally successful with the insane seems to be quite thrown away. They are indeed generally criminals who have become insane, after their whole moral nature has been perverted by crime and drink. A few cases of this class are the curse of an asylum, not only through the trouble they give themselves, but for the baneful influence which they exert on the other patients.

MACCLESFIELD.—*Third Annual Report*.—A considerable portion of this report is taken up by the Petschla case. As this case has already been sufficiently noticed in our columns, we will not further allude to it, except, as we have mentioned it, to say that the Committee are clearly correct in saying that this patient, far from being ill-used, was treated with exceptional kindness and consideration.

Great difficulty is experienced in reaching an adequate source of water supply, owing to the alternating beds of clay and quicksands.

The Commissioners note the number of wet beds as three in each division. This item is frequently noted in the Commissioners' reports. Our suspicion being roused by the varying number of wet beds stated to occur each night in different asylums, we find on enquiry that the same fact is not always taken on the basis of the entry. In some cases it is the number of patients found wet by the night attendants and changed; in others it means those neglected by the night attendants, and found out in the morning by the day attendants when entering on duty. The latter is always a much smaller number than the former.

We find more interesting details, as to certain differences in the character of the cases sent from the different unions, given by Dr. Deas in his report. As these are no doubt embodied in the paper read by Dr. Deas, at a quarterly meeting of the Association, we do not here extract them.

Had our space admitted, we should have wished to reproduce some well-put observations condemning the practice of bringing patients to the asylum under some deceptive pretext, and leaving the officers of the asylum to explain matters.

We extract the following from an Appendix of Medical Notes.

In three cases during the year, that peculiar combination of symptoms following upon maniacal excitement was observed, which is best described by the word *Typhoid*. The ordinary symptoms of a maniacal attack rapidly change to low, muttering delirium, with great muscular weakness and general prostration, passing into unconsciousness and collapse; and these symptoms are out of all proportion to the duration of the previous mania. Treatment seems of little avail in such cases, and the three referred to all ended fatally; one in 6 days after admission, one in 24 hours, and one in 20 days. In one of these another symptom was present, which I have observed before in cases of this description. This is a subacute inflammatory swelling of the parotid and sub-maxillary glands on one side—tense, brawny, and of a dusky red colour, but not proceeding to suppuration. The significance of this symptom is not fully evident, but it may be remarked that in such cases the power of assimilating nourishment seems impaired to a remarkable extent, and that the symptoms generally seem to point to the sympathetic system being greatly involved. The only pathological condition observed in common in these cases was congestion of the substance of the brain, this being most marked in the case which proved fatal most rapidly.

No less than three examples occurred during the year of that comparatively rare lesion, ulceration ending in perforation of a hollow viscus; in two instances of the bowel, in one of the bladder. One of the former was due to tubercular ulceration; the other, apparently, was the result of idiopathic peritonitis. It occurred in a stout, healthy epileptic, who, rising one morning, apparently in his ordinary health, was observed shortly afterwards, while sitting in the day-room, to be looking pale and ill. He was put to bed, and sank from collapse in a few hours. At the autopsy general peritonitis was discovered, and a small ulcerated opening where the jejunum passes into the ileum. In both these cases that latency of symptoms in regard to bodily disease so often noticed among the insane was very remarkable. To all appearance no pain was felt, and the first symptoms presented were those of collapse, due to the perforation. The case of

ulceration of the bladder exhibited the same characteristic. The patient had only been two days in the asylum, and had been found wandering at large, unable to give any account of himself. The mental symptoms were those of primary dementia. He hardly spoke, and could make no intelligible statement. The second morning after admission, he rose, sat at table, and took his breakfast. While still sitting at table, the attendant noticed him turn pale and faint, and caught him just as he was falling off his chair. He died in a few hours with symptoms of collapse. At the autopsy a ragged ulcerated opening, the size of a half-penny, was found in the posterior wall of the bladder, which was the seat of extensive malignant disease. There was blood and urine in the pelvic portion of the peritoneal cavity, but no peritonitis, there not having been time for inflammation to set in.

A case of compound fracture of the leg in an epileptic, treated antiseptically, is given in detail. We need not copy this, though its successful result says much for the antiseptic method.

Treatment.—This has been almost exclusively, as far as drugs, directed towards the bodily health. With the exception of chloral as a hypnotic, no sedative or neurotic medicine of any kind has now been used for upwards of two years, and my present opinion is that on this principle treatment, even of cases attended with much excitement, is not more difficult, and not less successful, than where medicines are freely employed; and if this be so, must not what, on this theory, cannot but be called the unnecessary use of powerful drugs, often for lengthened periods, be not unfrequently productive of injurious effects upon the general health or the nervous system? I am far from wishing to dogmatise on this subject, but I could wish that more would give a fair trial to the Non-sedative System, and that we heard a little less of those who advocate it being termed Medical Sceptics, Do-nothings, and so forth.

Seclusion has been resorted to in some cases as a valuable means of removing external sources of irritation, and affording rest to the excited brain; in others as a preferable alternative to manual restraint by attendants, so provocative of mutual irritation and struggles; and in others again as a precautionary measure for the safety of the other patients, and of the attendants—a consideration now-a-days rather lost sight of. The cases in which it has been chiefly used are these:—

1.—Certain recent cases of mania, especially where attended with great restlessness and weakness combined.

2.—The periodical furor of epileptics. In many cases of this sort, if the oncoming of the attack can be recognised, and the patient at this stage be persuaded to go to bed, the technical bugbear, *seclusion*, may not only be avoided, but the actual maniacal attack averted by a few days' rest in bed.

3.—The furious stages occurring sometimes in the mania of General Paralysis.

4.—Certain cases of "recurrent" mania, especially when associated as is not unfrequently the case, with marked perversion of the moral faculties (even during the so-called lucid intervals). Not to seclude such cases at times, when in their paroxysms, I should consider a grave neglect of my duty towards the other patients and the attendants.

Chloral.—This has been used whenever sleeplessness was a marked symptom, and as a reliable and safe hypnotic, it is, in my opinion, most valuable. I generally find 30 grains, given soon after going to bed, a sufficient dose; in a few cases repeating it, if needful, in two hours' time. In all it was given to 58 men on 898 occasions, and to 66 women on 2,442 occasions. 2 women, the subjects of chronic melancholia, took it during the whole year; 4 women took it for seven or eight months; 5 from four to five months; 9 from one to two months; the remainder for shorter periods, 9 having it only once. 2 men took it from four to five months; 1 from two to three months; 8 from one to two

months; and 15 had only one dose. In none of these cases were any injurious effects observed from even the prolonged use of the drug; though in many, beyond securing some hours' sleep each night, no direct benefit was derived from its employment. On the other hand, of those who had it more than once 24 recovered, and of these, in 12 cases, I believe it contributed materially towards recovery; and in the others it seemed to render it more speedy and satisfactory. Of the remainder, 12 improved considerably after having it for a time. As to the readiness with which it acts, our experience shows a marked difference between the sexes. Amongst the men, out of 898 doses it failed on 111 occasions; among the women, out of 2,442 doses, it is only recorded as having failed on seven occasions. The key, however, to a large part of this difference seems to lie in the fact that, out of the 111 failures among the men, 69 occurred in eight cases of general paralysis, being about one-sixth of the total occasions on which it was administered in that disease. The cases in which its use seemed most beneficial were those of atonic melancholia and the insanity of intemperance—whether in its acute or more chronic form; and if it may be said that these are forms of insanity readily curable by ordinary means, it must also be remembered that they are likewise forms in which sleeplessness is one of the most distressing and persistent symptoms.

Electricity.—The effect of the continuous current, derived from Foveaux's battery of 50 elements, as made by Weiss and Co., has been tried in a few cases during the year; but these were not sufficiently numerous, or the effects produced sufficiently marked, to justify me in forming a definite opinion on the value of electricity as an aid to treatment. I propose to continue the trial of it, both in the galvanic and Faradaic forms; as both the experience already recorded and *à priori* reasoning would lead one to expect decided results from its use, if we once had a key to the proper cases for its employment. Among the women, the cases selected were four cases of melancholia, in which no improvement had taken place for some months, and all having the common symptoms of great want of tone and energy, with refusal of food. Each had about 24 applications, the strength of current being gradually increased from 5 to about 30 cells. Each sitting lasted about six minutes, and the current, with short pauses, was passed from the right to the left temple, from the forehead to the occiput, and from the neck to the head. In two of the cases, which were also the worst, no appreciable effect was produced. In one, a decided, though not very great, improvement was observed, and this continued progressive after the treatment was stopped, culminating in recovery in a few months. In the fourth case a slight improvement was noted. In these two cases, the sensitiveness to the current was marked, and the pulse, as a rule, was fuller and slower, by a few beats, after the application than before. Among the men it was tried in two cases of melancholia, two of partial dementia, and one of incipient general paralysis. In one of the cases of dementia, though not much effect was observed at the time, he began to improve very much soon afterwards. In the other cases no change was effected. In the case of commencing general paralysis, extreme sensitiveness to the current was noted, even from only a very few cells.

Two letters on sewage farming prove what is sufficiently admitted, that the products of a properly managed sewage farm are perfectly wholesome.

SUREWSBURY.—*29th Annual Report.*—The changes among the staff of attendants here have been very numerous. As the number of the staff is nowhere given, we cannot say with accuracy; but the changes, 44 in number, probably exceed the number of the staff. We fear the Committee here are too parsimonious; the wages of the attendants are nowhere mentioned; but the proportion of the cost per week due

to salaries and wages is less than in all but a very few asylums, and their frequent loss of their medical superintendent is notoriously due to their reluctance to give an adequate salary.

HEREFORD.—*2nd Annual Report.*—We notice some statistics as to the attention paid to patients by their relatives, from which it appears that—

The number of patients who had no visit paid them, or no enquiries made about them, amount to more than half the males and more than a third of the females.

Dr. Chapman remarks on the non-existence of phthisis in the Asylum:

So far as I am aware, there is no case of pulmonary consumption in the asylum at present, whilst its absence from among the causes of death is conspicuous. I believe this is a circumstance to be fairly attributed to the hygienic condition of the asylum in the matter of ventilation and freedom from overcrowding, to the adequate dietary, and to the attention paid to a sufficiency of exercise in the open air. Phthisis is usually regarded as a disease endemic in asylums, and it is usually expected that a large portion of the chronic patients will become sufferers from it, and in many it is a large item among the causes of death. My experience at Abergavenny and here leads me to rank phthisis with the preventable causes of death in asylums. When I went to the asylum at Abergavenny phthisis was very rare there, and I was struck with the improvement and recovery which took place in some apparently confirmed cases. Before I left, the asylum became very overcrowded, and phthisis became a very common and fatal disease. I believe it has since, with the relief to the overcrowding afforded by the opening of this asylum, much diminished; whilst here we enjoy for the present a comparative immunity from it.

ST. LUKE'S HOSPITAL.—*Report for 1873.*—We miss from this report the entry of the Visiting Commissioners. Two clinical assistants are to be appointed in consequence of some observations of the Commissioners in Lunacy as to the necessity of an increase of the medical staff by the appointment of an Assistant Medical Officer.

The numbers show a strong tendency to increase.

THREE COUNTIES ASYLUM.—*Report for 1873.*—This report does not afford us any extracts.

ROXBURGH, BERWICK, AND SELKIRK.—*Report for 1873.*—Mr. Pierson analyses the admissions and the residents, so as to illustrate the effect of proximity to the asylum in increasing the admissions.

Dr. Mitchell says:

Two women—Jessie Brown and Mrs. Turnbull—appear very frequently in the record of restraint and seclusion. They were both excited and noisy during the visit, and the habits of the first are very degraded.

And Mr. Grierson states that—

One female—the Jessie Brown mentioned in the report by Dr. Mitchell—was transferred to the Argyle and Bute Asylum on the recommendation of the Commissioners in Lunacy, with the belief that change of scene and surroundings and regimen might accomplish what had hitherto baffled every attempt at amelioration.

The Visiting Commissioners afterwards found the patient at Lochgilphead, engaged in knitting stockings. We do not quote this incident as by any means to the discredit of Roxburgh, or in any very special way creditable to Lochgilphead.* But it is an instance of what we think might very advantageously be a more frequent occurrence. When any patient proves markedly unimprovable, a change to another asylum is a resource that ought not to be neglected. Yet in the present state of the law there are so many difficulties in the way of its being carried out, that it is practically never done, unless in the very exceptional case of one patient killing another, when the offender is sent to Broadmoor or Fisherton. What we suggest is something far short of this. How beneficial a change from one ward to another is! How often have patients special delusions about particular officers or attendants that quite prevent any improvement in their state! Not unfrequently a patient gets into a vicious circle, he is treated as a bad patient because he is a bad patient, and he is a bad patient because he is treated as one. That there is great difficulty in getting out of this circle, or at least that not a few patients are in it, is clear from the circumstance so frequently commented on by the Visiting Commissioners, that a whole wardfull of patients are improved in behaviour, often marvellously, by improving their surroundings. For these and other reasons of smaller detail, and of daily experience, we are satisfied that the Jessie Browns of asylums would be much fewer in number if the treatment adopted in her case could be more freely resorted to.

DORSET.—*Annual Report for 1873.*—A large surplus continues to be made here from out-county patients.

Early in the summer a very serious loss was experienced by the death of a valued and most faithful servant, Samuel Guppy. He had been in the service of the County for nearly 27 years, and during the last 18 had acted as head attendant in the wards on the male side, beside superintending the farm and out-door work, and the meat supply for the two establishments. The visitors have caused a tombstone, with a suitable inscription, to be placed in memory of so truly a good man in the churchyard of Buckland Newton, where he was buried.

Mr. Symes says, concerning the mode of bringing patients to the asylum :

Here I would take the liberty of remarking that in almost all cases some special covered carriage should be got, whereby the patient may be taken from his home in as quiet and private a manner as possible, and this should be done by the relieving officer and some other assistant, if necessary ; and whenever it is possible to avoid it, policemen should not be employed, for I know the presence of these officers tends to irritate rather than soothe the mentally-disturbed patient.

We have already commented in connection with the Hanwell

* She soon became as bad as ever, we understand.

Report on a recommendation of the Visiting Commissioners similar to the following:—

It would be well, however, to have scales in each ward for inquiry into deficiency of weight of the subject of complaint by any patient. The meat, when cooked, is weighed in bulk in the kitchen. Having arrived early in the morning at Forstone, we found the wards there in some disorder, from scrubbing and cleaning; but there was nothing to find fault with in the beds and bedding, except that mackintoshes are placed between the sheet and blanket, instead of below the blanket.

There is something enigmatical about the gruel here. The Visiting Commissioners say:

A few still complain of the gruel given at breakfast, which, as far as we could learn, is not the fare of the poor in this district. It is made with milk, and from 80 to 100 quarts is the proportion of water to 15lbs. of the oatmeal. Still, it is not popular, and tea would be a wise substitution, with bread and butter.

We should like the ratio of milk as well as that of water.

This appears to be one of the few asylums where the neighbours object to walking parties of the patients.

It is the more necessary that their number should be increased, and that entertainments should be multiplied, since we are informed that there is a difficulty in taking the patients into the neighbouring town and villages, on account of objections unreasonably raised by some of the inhabitants.

The maintenance rate, like the wages of the Dorsetshire labourer, continues the lowest of any in England. The recovery and death rates will bear favourable comparison with those of almost any other asylum.

CHESTER.—*Report for 1873.*

There is no padded room in this asylum, and we think that this want should be supplied in each division. These rooms are very necessary as a means of protection to feeble and restless patients affected with paralysis or epilepsy.

BIRMINGHAM.—*23rd Annual Report.*—The report of the Visiting Commissioners is omitted.

NORTHAMPTON LUNATIC HOSPITAL.—*Report for 1873.*—Nothing specially attracts our attention in this report, except the progress which is being made in converting this into a middle class and non-pauper asylum.

The Visiting Commissioners note—

Although the hospital contains only one more patient than at the date of our colleagues' visit, there has been an increase of 22 in the private class—a proof, we trust, that the public appreciate the great advantage offered in the hospital for the care and treatment of patients of moderate means. The charges for maintenance remain as before. The lowest sum at which patients are received is 15s. per week; but this sum is often reduced, upon the Committee ascertaining that the patient's means are inadequate to meet the charge.

And Mr. Bailey tells us that—

There has been an increase of 55 in the total number of admissions, as compared with the previous year ; and the number is higher by 47 than in any other year since the Asylum has been opened. The increase has been on the part of the private class. The number of this class admitted in each year, during the past ten years, is as follows.—

1863 18	1869 29
1864 21	1870 29
1865 23	1871 45
1866 20	1872 74
1867 31	1873 92
1868 22	

The number of discharges, 124, includes 67 recovered, 20 relieved and well enough to return to their friends, and 37 not improved, 36 of whom were pauper patients, transferred to Macclesfield, in accordance with the agreement with that county.

SUFFOLK.—36th Annual Report.—We have here only the report of the Superintendent, and the first six tables of the Association, the diet table, and a list of the visitors—no report of the visitors or of the Commissioners, nor any financial information whatever. The following, by Dr. Kirkman, is rather gossipy, but worthy, we think, of presentation:—

The comparison between different asylums would be invidious, were it not that some phenomena have gone so far back into the past, that their chronological place is well nigh forgotten. It is upon this ground that special notice is requested to the case of a patient recently re-admitted, after a residence at home of forty years. He has been industriously employed as a shoemaker in the parish of Melton. He was well known to the earlier visitors of the asylum as one among others from whom all instrumental restraint was removed by the present medical superintendent, in the year 1831. He had been confined every night to his bed by an ankle strap, with an iron ringlet attached to it, and he still bears some significant marks of this torturing treatment. Neither the medical officer or his patient are likely to forget the night when this unwarrantable instrument was cut away, or the objections raised by the attendants to its removal. The notice of this overpowering evidence of the blessing of the treatment of the insane without restraint was urged in a lecture given by the Superintendent at Woodbridge, when he introduced himself from the County Asylum as a representative of freedom there. This interesting patient alluded to was admitted in November, 1831, and when re-admitted on the 3rd of this December, 1873, he held up his foot in grateful remembrance of his liberty.

YORK LUNATIC HOSPITAL.—Report for 1873.—We extract the following remarks by Dr. Needham on an unsuccessful attempt at suicide. Similar expressions of opinion are to be found in several reports. We have not reproduced more than one or two of these—

I have recorded this case as illustrating two facts of importance in reference to the management of asylums. The first, that under the present liberal and enlightened, and, therefore, only possible, treatment of insanity, a certain risk of danger to the individual must be run, in order to secure the benefit of the many ; and the second, that while a salutary influence is undoubtedly exercised by the public imputation of full responsibility, where there is full control, it is yet requisite that a discriminating judgment should be passed upon accidents which no care can prevent and no provision foresee.

LANCASTER, PRESTWICH, RAINHILL, AND WHITTINGHAM.—These reports are in the same form, and furnished with a title page for the four reports, with a view to their being bound together. The principal items of remark in the report of the older asylums have reference to seclusions, to the question of suitable attendants, and to the sending of workhouse cases to the asylum, and retaining in the workhouses cases requiring asylum treatment. The asylum at Whittingham is now opened, but is not yet fully completed.

Up to the present date there has been expended in all, on the land and building account, the sum of £119,981 18s. 2d., of which £14,005 8s. 10d. have been spent on land and foundations, the rest on the main building and its accessories, roads, water mains, &c., &c.

For these purposes the sum of £120,000 has been already voted by the court. It is calculated that a further sum of £35,000 will be required to meet all the requirements of the institution which the county is called upon to provide.

The accommodation is for 1100 patients, coming to something like £145, say £150, per bed. This fully confirms the wisdom of the course pursued here of making the appointment of its superintendent the first step towards the construction of the asylum. and contrasts favourably with several recently built asylums, which have cost over £200 per bed.

ESSEX.—*Reports and other documents, printed January, 1874.*—Dr. Campbell draws the attention of the Committee to the question of removing patients to workhouses, and points out, by reference to the statements of the Commissioners, that special provision must be made in the workhouses before much can be done in this direction.

HANTS.—Dr. Manley's remarks on Criminal Lunatics, giving another expression to an opinion now very generally entertained, are as follows :

"I take this opportunity to make a few observations on the detention of Criminal Lunatics in County Asylums. In my Report for the year 1856, I pointed out the great distinction there exists between criminal lunatics and lunatics with criminal intentions, as instanced by Dr. Bucknill, now one of the Lord Chancellor's Visitors in Lunacy. He remarks that "The criminal lunatic may be a harmless imbecile without sufficient wit to keep him out of mischief, committed for some misdemeanour or petty crime ; whereas the other, though not actually criminal, may have the most vicious and dangerous propensities." I showed also that it depends occasionally very much whether a person brought before a magistrate in his official capacity is sent to an asylum or consigned to prison, and that, therefore, it is sometimes a matter of chance alone whether a lunatic is made a criminal or not.

I can call to my recollection patients who were evidently insane at the time of the commission of the act which made them criminal, and for which they were sent to prison, and I can remember also several

who, though sent to the asylum, should, in my opinion, have been dealt with as criminals.

It has been recently pointed out that in the Criminal Asylum at Broadmoor, the principal part of the inmates consists of persons who, having been acquitted of crimes on the ground of insanity, are detained during her Majesty's pleasure, and that these constitute the better class; that the other class—the most troublesome and dangerous to deal with—are composed of those who have been removed from convict prisons.

Both classes find their way into County Asylums, the Secretary of State having power to order thereto any person who, whilst imprisoned in any prison, or other place of confinement, under any sentence, or under a charge of offence, or for not finding bail, &c., may become insane (27 and 28 Vict., c. 29, s. 2); or to transfer thereto any criminal lunatic whose sentence has expired, as if he had been found wandering within the place where the offence was committed, in respect of which he became a criminal lunatic (30 Vict., c. 12, s. 6).

There are in this house, at the present time, 25 males and 4 females sent here on such orders, and I venture to assert that seven of the men are our most violent and dangerous lunatics, and are unfit subjects for detention here. Of these, one was a convict and four were soldiers undergoing their respective sentences, all of whom were marked with the letter D, and three of them with the letters B C also."

LINCOLN.—*21st Annual Report*.—A short but severe epidemic of scarlatina, from which three patients died within 48 hours of the onset of the disease, must have been felt as a position of much gravity.

SOUTH YORKSHIRE.—*Report for 1873*.—1st. Dr. Mitchell reports a "disproportionately large number of helpless and bed-ridden cases in the asylum. For the last four months there have been on the average 25 women and 15 men daily confined to bed from bodily disease and infirmity, giving the large proportion of 1 to every 11 patients." Extra diet is ordered instead of sedative drugs, which are scarcely ever employed.

"In making careful enquiry into the family history of patients in the asylum, I have found that in half the cases in which any trustworthy information could be obtained, the father or grandfather (in many instances both) had been in the habit of frequently getting intoxicated."

We do not quite understand why the Committee take credit to themselves, and compare themselves favourably with other recently-opened asylums, for charging only 10s. 6d., when the figures given show that, though that was the charge made, the cost, as in other new asylums, was high—viz., over 12s.

WEST RIDING.—*Report for 1873*.—A gradually increasing pro-

portion of patients whose habits are of a degraded type is noted here also.

Dr. Browne says, "Non-official visitors have latterly been admitted to the wards more freely than was formerly the case, as I believe that in this way much may be done to diffuse correct notions of what an asylum now-a-days really is."

The following clear exposition, by Dr. Browne, of well-known but not always remembered facts, is worthy of preservation:—

But while a survey of the field of lunacy does not furnish us with any one sufficient explanation of the growth which is there going on, it supplies us with many practical lessons as to the various circumstances which favour or retard that growth. And one of these lessons, worth learning at the present time, is that a neglect of sanitary precautions is inimical to mental health, and that madness may have its roots in the drains. Foul air, filthy water, unwholesome dwellings, are influential, directly and indirectly, in deranging the normal action of the brain. From them proceed fever, erysipelas, a brood of maladies that are in many cases productive of delirium or disorder of brain functions, which in some instances is not transitory, but remains long after the acute disease has subsided, and becomes, in fact, insanity. Year by year there are added to the population of this asylum several unhappy beings whose mental infirmity has dated from an attack of preventable disease. But a poisonous atmosphere, a putrid drinking liquid, and squalid habitations are productive of insanity to a much larger though less calculable degree, through the lowered vitality and emotional depression which they induce, and the recklessness and dissipation to which these drive, than through the direct effect of acute disease. The passage from the physical to the moral storm is easy, and drunkenness, pauperism, crime, and madness are the natural outcome of miserable houses and contiguous gin-palaces.

BELFAST DISTRICT.—*44th Report.*—After his labours in favour of removing criminal lunatics from district asylums, it must be very trying to Dr. Stewart to have to report that—

Seven were transferred here from gaol as "criminal lunatics" by order of the Lord Lieutenant, which is a much to be regretted retrograde movement, these institutions being supposed to have been altogether freed from such inmates since the establishment of the Central Criminal Asylum at Dundrum; and most assuredly the ordinary insane should not be associated with those who have been in any wise mixed up with the commission of actual criminal offences, thus giving too much occasion for insanity being looked upon as a disease of degradation.

Dr. Stewart speaks plainly on the matter of restraint. Whilst stating its disuse in the Belfast Asylum to have been the rule since 1829, he says—

It is not to be understood that cases do not occur in which it would be nothing short of both an act of cruelty as well as a dereliction of duty not to use the restraint of a camisole, or such like mild form of coercive means, for the preventing of danger to both patient and attendant; and no morbid fear of consequences should prevent medical superintendents from this discharge of a bounden duty towards their patients when the occasion demands it of them

The Irish reports do not give much financial information. In this one a list is given of the reports sent in exchange.

RICHMOND DISTRICT ASYLUM, DUBLIN.—*Report for 1873.*—Dr. Lalor states—

That of the re-admissions as relapsed, several have belonged to the classes of dangerous and criminal lunatics, in which it is sometimes a matter of considerable difficulty to decide whether the circumstances (chiefly acts of violence) on which the allegation of their insanity is grounded arise out of habits of depravity or intemperance, and whether those cases should be classed under the head of insanity or criminality—whether they are to be considered as criminal or insane. I am of opinion that they should be dealt with as a peculiar class, and that, whenever a person comes before the legal authority, under the statutable terms either of a criminal or dangerous lunatic, there shall be a legal power in all committals to regulate the periods of confinement on a cumulative principle. In the case of the dangerous and criminal insane, the habits or tendencies indicated by the repetition of acts contrary to law and order, require long detention, and treatment in proportion rather to the frequency of repetition than to the gravity of the individual act. In the present state of the law, dangerous and criminal lunatics are, and must be, discharged when they have ceased to shew any symptoms of insanity, or have ceased to be dangerous. In a large proportion of these cases no delusion ever existed, and from their withdrawal from exciting causes, and the discipline of an asylum, they cease to be dangerous in a time much too short to allow of that reformation of habits and tendencies which alone gives any reasonable security against the recurrence of the acts which brought them under the surveillance of the law on previous occasions."

As to seclusion, Dr. Lalor says—

... This diminution of seclusion has, I think, led to good results.

The shower bath, which, like seclusion, should be used as a remedial, and not a punitive, agent, has come to be generally considered as being had recourse to only in the latter sense. From the bad effects caused by the existence of this opinion, whether amongst the public at large or the inmates of asylums, I have been led to make a trial of the discontinuance of shower baths during the greater portion of the last year.

The statistical tables are very numerous. Those of the Association are not given, nor are the Commissioners' entries. The financial statement is sufficiently full.

Hardly a report is without some remarks on the increased cost, due to the high price of coals and provisions. These facts are, however, sufficiently notorious to relieve us of the necessity of giving any summary of them. In a large number of asylums the wages of attendants have been increased. The constant supervision of epileptics, especially at night, with a view to prevent suffocation during a fit, has been made a specialty by the Commissioners in Lunacy during the past few years. From those reports in which there is any allusion to the subject, we gather that special night watching is in force at nearly half the asylums. The following are the only references to the subject that present any special interest:—

Dr. Biggs, Wandsworth, says—

In order to avoid accidental suffocation of epileptic patients, the Commissioners in Lunacy urge continuous watching at night. There are 165 epileptics in this Asylum, and most of them are visited at intervals of about half-an hour, many of them habitually require single rooms, and at times almost half the

entire number. It is impracticable that each single room occupant can be continuously watched. The suggestion of glazed doors, through which an attendant may peep, is useless, as suffocative epileptics must be closely scrutinized. It is, however, very desirable to prevent fatal casualties, and, as a temporary expedient two more night attendants are to be engaged.

At Stafford, the Visiting Commissioners remark—

There is still only one night attendant in each division, and we think it impossible for them properly to attend to upwards of 500 patients during the night, especially when the number of epileptics (upwards of 100), and of acute cases received here is taken into consideration.

At Oxford the Committee say—

Two inquests have been held during the year, one of them being on the body of T. W., who was received from the Oxford County Prison, and the other on E. S., a man who died from epileptic asphyxia. He was found dead in a single room with his nostrils stuffed up, and a piece of flannel in his mouth, which he had placed there under the delusion that he would exclude noxious vapours, he being seized with epilepsy at the time.

And the Commissioners report—

In the four deaths from epileptic asphyxia, the patients all slept in single rooms, being for various reasons deemed unfit for the associated dormitory, where the remaining epileptics of their sex have, since our colleague's visit, been placed under the special supervision of a night attendant. We have had some conversation with Mr. Sankey to-day as to an alteration of the sleeping arrangements for epileptics generally, with a view to extending the supervision of the special night attendant as far as possible to those of that class sleeping in single rooms. This would involve the appropriation, for this purpose, of other dormitories near to single rooms, and some structural alteration of the latter. The large mortality which has arisen from epileptic asphyxia renders it necessary that every possible precaution against the casualty should be taken.

Dr. Rayner, at Hanwell, records that—

A special arrangement has been made for the night watching of those epileptic patients who are most liable to the danger of suffocation during their attacks. A special attendant has been appointed for this duty, who is so posted during the night as to be able to see and hear anything that occurs in either of the two dormitories (containing 64 beds) in which the epileptics are slept. Adjoining are six single rooms, two of which are padded, to receive any patient who may be restless, or may be in danger of injuring himself in his attacks. The bed-rooms of four attendants adjoin the dormitories. I have so far had every reason to be pleased with the result of the arrangement, and the feeling of having assistance always at hand seems to give confidence to these patients, who often suffer more or less from a dread of their malady.

The following, by Dr. Williams, are from the Sussex Report:—

We have now six night attendants (three male and three female) on duty every evening, independently of any extra attendants who may be told off from time to time to watch specially suicidal or acute cases. It is the sole duty of one of these attendants on each side to watch the epileptics. He sits in the epileptic ward with all the doors open, and satisfies himself by minute inspection every hour that each individual case is alive and well. The ward contains two dormitories (each of six beds)—one three-bedded room and five single rooms (one padded). In this ward all the worst epileptics are collected. The remaining epileptics sleep in an adjacent dormitory, which also receives a bed-to-bed inspection every hour.

I have, however, long felt that even more constant supervision than this would be advisable, and, with a view of laying the question before you, have

carefully considered how some such a scheme as the Commissioners propose could be carried out, but have hitherto failed to solve the difficulties, and for these reasons:—We have 40 epileptics of each sex in this asylum, and I should view with alarm the collecting 40 epileptics in one ward with one nurse to look after them; and it is a question whether the expense of keeping two or three extra night nurses would be justifiable. But independently of this, we have no ward in which we could collect so many cases, so as to be constantly under supervision, and the structural arrangements of the building are such that no adjunct could possibly be built to the epileptic wards. The Commissioners say that such special wards have been established in some asylums, but I imagine they must be small or new asylums, wherein the number of epileptics is small.

A matter on which we have a very strong opinion remains to be further noticed. This is the question of the statistical information given in the various reports, both in the medical tables and in the financial statements. In the following remarks we confine ourselves to the reports of the English asylums; not because they are the most open to criticism, but, on the contrary, because they now show so general an approach to uniformity in the manner of giving the statistics, that it appears worth while to point out the deficiencies in hope that they may be amended. The medical tables of the Association take the first place. Of 54 reports examined, we find them given in full and in their proper order in 35. In 3 others they are so mixed with others as to be difficult of reference, but are all given. Four others omit Table X. Two give only the first six, and the 10 remaining give only some of the tables. In earnestly requesting that all these tables may be given in all reports, we find that we are only asking for 39 more tables from 12 asylums, the number of tables already given being 501. It seems too bad that the full value of these 501 tables should be unavailable for want of 39 others, not more difficult to supply than any that are given. We confess to a certain amount of sympathy with those who omit Table X; it is about the most troublesome to make out, and this is the more annoying as, during the process, almost each item repeats and deepens the impression that the whole table is founded on facts badly authenticated—often imaginary—and that, consequently, the table is worthless, or nearly so. This table is, indeed, almost useless, unless it could be agreed to enter no item of which the medical officer had not satisfied himself. The item “unknown” would be largely increased, but what was entered would be of great value. We find, also, that Table III. requires more care in taking out the percentages than it often receives. For example, we see in the report of a recently opened asylum the average number resident for a fraction of the year is treated as that of a whole year, and the death rate is calculated as half what it should be. The same figures occur in the report of the Commissioners.

We think the time has now come when the Commissioners in Lunacy may fairly call for copies of these ten tables from all asylums, and, throwing the whole into one set, present them in their own annual reports. The only difficulty that would present itself would be the treatment of transfers, which would have to be eliminated. It

is hardly necessary to say that the tables so given in the Commissioners' Reports would be of exceeding value. The Table IX. of such statistics would solve almost on inspection several of the most disputed points bearing on the increase of insanity.

There are, in the various reports, a multiplicity of tables, which we reduce to about 24 essentially different tables, although they are more than twice as numerous, if each variation in the manner of presenting them is reckoned.

The following are those that are given in a sufficient number of reports to make it desirable that a committee of the Association should reconsider this subject, and recommend certain of these for general adoption—

Forms of disease on admission	in	42 Reports
Occupations of admissions	„	34 „
Religious persuasions	„	23 „
Admissions (and sometimes dis- charges and deaths) each month }	„	16 „
Health of admissions	„	14 „
Education of admissions	„	10 „
Curability at end of year (in some with mental state of patients) }	„	9 „

The only tables of general value of those given in fewer reports are that giving the age on first attack among the admissions, and that giving the ages of patients in the asylum on Dec. 31st.

A record of the daily state of the patients is given in 26 reports. This takes a very various form. Sometimes an extract from head attendants' reports; sometimes a statement of average number employed, &c. This is useful, if a general agreement as to its form could be come to. Thirty-three reports give different details as to articles made, work done, &c.

A meteorological report is given in five reports. We think meteorological observations should be taken at all asylums, but we doubt the necessity of publishing them in the reports.

A table, giving a summary of the annual returns of clerks to guardians, shewing the number of patients in the county, and how they are disposed of, is given in 22 reports. This is a very desirable table.

A diet table is given in 42. This should be in all.

When we come to the financial information we find a much greater apparent agreement; but really, in many respects, wider differences. Some few reports are without any financial tables. A balance sheet is given in 46. This sometimes contains a summary of receipts and expenditure, and a statement of the financial position. Sometimes these are given separately, in two, three or more separate statements. To include (and always to give) these in the balance sheet seems the more frequent and also the simplest course, and ought, therefore, to be generally adopted.

A detailed statement of receipts and expenditure is given more or

less fully in 42. The amount of detail varies exceedingly. This is a matter of little consequence, provided it is fairly full. An exceeding detail, such as in the Wilts, is painful. Each item of any importance should be mentioned, with quantity and cost. There is no need for a separate table of quantities consumed as in some reports. A table of contract prices should be given separately. This is done in 27 reports. The items of salaries and wages are given in 37.

The matter yielding the most numerous difficulties in using these tables in any comparison is the very various method of dealing with building and repairs accounts. Only three asylums include this entirely in maintenance account. Others appear to charge everything they possibly can to building account, including wages of engineer, and repairs of bedding and furniture, and between these there is every gradation. Twenty-three give a separate building account. The remainder keep the account along with the maintenance account. We think the accounts should be presented separately, but we can hope for no uniformity of practice as to what items are to go to each account until we have an authoritative statement from the Commissioners or legislative interference.

The tendency on the part of the majority is certainly to charge everything that fairly can be charged, to building and repairs account. We, therefore, as the shortest way to uniformity (there are other weighty reasons for that course), recommend this practice for general adoption.

The details of the cost per week are given in 45 reports. A farm account is given in 46 reports. In not a few the apparent profit is increased by omitting to charge rent, rates, work from asylum, and several other items that a farmer would have to pay for.

A statement of stock in store at the end of year is given in only 10 reports. Without this for comparison with the similar table of the previous year, the expenditure may give an entirely delusive measure of the real cost.

The amount of alteration required to bring all the reports into uniformity is, after all, but slight. For instance, the Carmarthen report meets all requirements. A little more detail is wanted in the statement of wages. Table X. appears as table XII. In table III. the first year's mortality is stated as 5 per cent. instead of 19 per cent.

The Glamorgan report only requires the building and repairs to be stated separately from the maintenance account.

In the Cumberland and Westmoreland a statement of stock in store at end of year is wanted. The two tables showing the patients in the county, as per Clerk to Guardians returns, should be thrown into one; and it would be well to separate a farm account, a building and repairs account, and a balance sheet, from the general statement of accounts with which they are now incorporated,

Whilst some reports are very defective, the majority could be brought to a state of comparable uniformity with alterations as trivial as those just noted.

PART IV.—NOTES AND NEWS.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

A quarterly meeting of the Medico Psychological Association was held in the College of Physicians, Edinburgh, on Thursday, the 26th November, 1874. Dr. Lowe occupied the chair during the early part of the proceedings, and Dr. Howden, Montrose, afterwards took his place. The following members were present :—Drs. Aitken, Clouston, Ireland, Batty Tuke, Brodie, James MacLaren, Sanderson, Thomas Howden, Rorie, Yellowlees, Anderson, Fred. Skae, and Campbell.

BLOOD CIRCULATION OF THE BRAIN.

Dr. J. BATTY TUKE exhibited a series of injected specimens illustrative of the circulation in the brain. In the course of his remarks, he said that he, along with Dr. M'Kendrick and Professor Dewar, had directed their attention to the injection of the brain, and by a very ingenious process, devised by Professor Dewar, injections could be made with the greatest ease. These he now placed before the meeting, and although the results of the experiments were not yet perfect, and although he was not able to say what the total results would be, he was able to demonstrate certain points of interest. The specimens on the table represented the bottom of the *sulcus*, in which they would see the transverse cut end of a vessel from which came off a series of vessels starting to the right and left at right angles. From these secondary vessels they had three series of arteries; first a large and less numerous class, which went to the white matter, occasionally, though rarely, giving off a twig in their course through the grey matter. Directly the medullary arteries reached the white matter, they sent branches off to the right and left at right angles, which communicated again. Next there were medium-sized vessels, which went directly to the centre of the grey matter, and which were the most numerous. Then there were the terminal vessels, as far as the grey matter was concerned.

The other specimen was that of a cerebellum, and a very curious thing connected with it was that the cerebellum seemed to be a more highly vascular organ than the hemispherical ganglion. We generally regarded the organ which was highly vascular as having a more important duty to perform, but as yet we were completely in the dark regarding the duties of the cerebellum, and it was thus all the more curious to notice its high vascularity.

He was all the more desirous to point out the anatomical points connected with the vascularity of the brain, inasmuch as Dr. Durie had published a couple of papers in which he attempted to point out the manner of blood supply of the brain. In his opinion Dr. Durie's diagrams were very erroneous. It might be that the diagrams, being taken from the brains of the lower animals, were different from the human brain. Dr. Durie made the vessels go to the medullary matter, but he did not make them break off at right angles as he (Dr. Tuke) had found to be the case in every example he had examined. He hoped very soon to get a perfect injection of the brain, and to complete the experiment of simultaneous injection of artery and vein by which one could distinguish which was the artery and which the vein.

Dr. HOWDEN said he thought there was a great difference in the circulation of the blood in different animals, although he was not prepared to say what it was.

A vote of thanks was given to Dr. Tuke for exhibiting his preparations.

PREPARATIONS SHOWING SMALL GRAPE-LIKE ANEURISMS OF THE PIA MATER AND BRAIN

Were next shown by Dr. HOWDEN (See Clinical Notes and Cases, p. 587).

Dr. TUKE—Did the person die of apoplexy?

Dr. HOWDEN—Of paralysis.

Dr. IRELAND asked whether they could be seen with the naked eye.

Dr. HOWDEN said they could, but not easily, unless they were known to be there.

THE HALLUCINATIONS OF MAHOMET.

Dr. W. W. IRELAND read a paper on the hallucinations of Mahomet (see Original Articles, p. 561).

The CHAIRMAN asked if any inquiry had been made into the hallucinations of Joe Smith, at the Salt Lake?

Dr. IRELAND said he understood that Joe Smith was an uncommonly healthy individual, and he had always put him down as an impostor.

Dr. HOWDEN said he thought that one point which Dr. Ireland mentioned seemed

to throw doubt on the epilepsy of Mahomet—viz., that he was a man who had great influence over others. In regard to Napoleon, he understood that his epileptic fits were nocturnal, so that they were not likely to be seen by persons merely acquainted with him during the day. They knew that there were some great men who had epileptic fits, and he had no doubt there were some who had kindly recollections of an eminent Edinburgh professor who had epilepsy. From what he had read, he did think Mahomet was an epileptic, but he thought Dr. Ireland was right in believing that Mahomet's supposed revelations were not due to epilepsy, but were part of a studied system of manufacturing a religion, as it were. In regard to the poison which the Jewess administered to Mahomet, after the capture of the Jewish city, he thought that in most accounts of Mahomet it was represented that the poison influenced his health ever afterwards, and that his death was probably the result of the poison which had been administered fourteen or fifteen years before. He did not know any poison which would continue to act so long (a Voice: "except syphilis").

Dr. TUKE could easily understand men who had taken up a course of action like Mahomet, or Joseph Smith, or Luther, who had a strong desire to carry out the great object of their lives, getting overcome in this way by the over-exertion of their brains and by over work, as no doubt they would fail to obtain the proper amount of sleep that was necessary for repose and recuperation, and which was so often accompanied by morbid manifestations. An exhausted brain was very often followed by a slight and transient attack of epilepsy, and the delusions of those men were those very much of an exhausted and over-worked brain, conditioned also by the superstitious style of feeling of that day. The mere fact of Luther referring one thing and another to the devil could not be taken in the same light as in the present day, when there was a great change of view in regard to the devil (laughter). He thought the over-excitement in the individual was the cause of many of the accusations of insanity which had been set down against some of the greatest men who had ever lived.

Dr. AITKEN said Dr. Ireland had remarked that no one ever saw Napoleon in an epileptic fit, but he recollected reading of one occasion when Napoleon was in a condition that suggested epilepsy. It was narrated in Alison's History of Europe that at the battle of Borodino, immediately before Napoleon entered Moscow, when the aide-de-camp came for instructions, he was unable, from being in a semi-comatose condition, to give any orders.

Dr. IRELAND said he knew that Napoleon was unwell at the battle of Borodino, but it was his impression that he must have had some severe illness before the particular conditions referred to, and that he felt unwell and unable to grasp the details of the movements of an army stretched over three or four miles, which would require an immense mental effort.

Dr. CLOUSTON said that Dr. Ireland had opened up a most interesting question, especially as concerned themselves and their speciality. From the point of view in which they looked at a question of this sort; from the way in which they looked at the mental and physical phenomena accompanying the lives of such men as Mahomet and Luther, he had no doubt that all of them had formed some theory of the brain condition and its outcome in many such men. The question—and it was a most interesting one—really came to this: How much of the lives of these men was to be accounted for by abnormal brain condition? None of them could lead the life of Mahomet, or of St. Francis, of Bunyan, Joe Smith, and others, without applying the results of their experience in morbid brain functions to explain some of the phenomena in the lives of some of those men. Setting aside altogether, as a thing with which they had nothing to do, the purely spiritual aspects or spiritual theories, they found that there was a sequence of phenomena in the lives of those men, partly healthy and partly morbid, which their experience threw light upon. Taking the life of Mahomet and Luther, they found, in the first place, that these men arrived at a mature time of life before there was anything specially noticeable about them. Then those men, one and all of them nearly, took an attack of what they might call melancholia. Some of them went and secluded themselves from the world, and did not attend to their avocations. Their previous life and interests and habits were changed. The chief of the morbid phenomena in these men's lives took place in the melancholy period. They did not take place in the period of life when they exhibited their greatest mental power, or influenced living men most. As a general rule, the things that seemed most like hallucinations took place during the melancholy period. Now, without committing one's self to the theory that this

period was of the nature of insanity—because he thought the brain could be in a condition far from its normal state, so as to produce symptoms like melancholia, and yet have nothing of the nature of real insanity about it—it had occurred to him that an addition must be made to Dr. Tuke's theory of over-work, which did not explain all, because these men did not over-work their brain before they had the melancholia. They were not to suppose that Mahomet had over-worked his brain. He was a quiet, respectable Arab before he took his melancholic attack. It seemed as if it were a natural development in the brain-life of those men that their brains should quietly develop without any great outcome, the power of the brain-cells being stored up to a certain period, and that at that period the evolution took place, which was the beginning of their public lives. Many of the phenomena of this evolution showed that they had an unequal brain development, that the mental portions of their brain, being enormously developed, but not brought into full exercise up to a certain time in their lives, when the mental brain-cells then let loose their stored up power, it was too much for the sensory and motor centres, so causing hallucinations and epileptiform symptoms. They knew that the brain was divided into different portions, and he thought the phenomena of hallucinations were caused by the extravagant exercise of the mental portions of the brain, just as Ferrier found when he applied electricity to the convolutions of the brain of a monkey, that it had such an effect on the motor centres inside as to cause an attack of epilepsy to come on. When the mental portions of Mahomet's brain came into exercise, he did not sleep, and was subject to intense nervous action and exhaustion, and abnormal actions of the weakest parts were likely enough to result. Mentally, they could quite understand that he might then have hallucinations and epilepsy. Luther's dizziness and want of sleep and the "diu" he heard were the result of the intense working of the cells in the brain convolutions, preventing the auditory centres from having proper rest and repair in sleep.

Dr. SKAE said he thought Dr. Ireland seemed quite justified in his opinion that the fact of Mahomet being an epileptic, even if it were proved, would not account for his career or religious beliefs; rather the reverse, there was a difficulty in reconciling the fact of his taking fits with his great career. It seemed, however, from Dr. Ireland's own paper, that the assertion that he took fits rested on as trustworthy evidence as his hallucinations, which Dr. Ireland admitted.

Dr. YELLOWLEES said he thought they must go a step further back. In all those cases there must surely have been some amount of emotional disturbance in one special direction. In Luther's case something suddenly occurred which made him open his eyes and say—"Dear me; has all the past been a delusion, and are all these new truths going to upset my previous notions?" With that, one might understand how he would pass sleepless nights and experience epileptic and nervous disturbances. In the same way, when Mahomet was plotting in the caves as to his future career, it might have the like effect, but it appeared to him that to account for these brain disturbances we must have some emotional causes. The melancholic period might not be a morbid phenomenon at all. What was more natural than that St. Paul, after what he saw, should have his career followed by a strange alteration of his whole life and character?

Dr. CLOUSTON said he did not dispute the emotional disturbances, but he wished to bring out that in such cases there was an unequal brain disturbance. He did not in the least dispute or doubt that originally there was a mental, and emotional, and a spiritual influence in many of those men, but none of these things could be manifested except through the brain, and it was our business to explain how, during such manifestations, certain morbid nervous phenomena also occurred. This we could only do rightly by a reference to the physiology of the brain. He thought it would be ridiculous to put down all epileptics as being poor, weak-minded creatures, because we saw most of our epileptics so.

Dr. HOWDEN said it would be interesting to know if there was any evidence of an inequality of Mahomet's brain. His life appeared to be consistent. He was born at the time when the Arabs had become intensely idolatrous. He was a man of high religious sentiments, and he pondered over those idolatries. He had evidently become acquainted with the writings of the Jewish prophets, and also to a certain extent with the life of Christ, and with the epistles. He had first been of opinion that Mahomet might have been an epileptic. He thought the hallucinations (if he had any) might have been caused by his religious character—by his previous training and thought. There was no doubt that in many respects Mahomet, in the time he lived, was not only a very great man, but a good man, and did a great deal of good among the tribes in which he lived.

Dr. CAMPBELL said that all brains were not made like the American "one-horse shay." It was well known that, for instance, one portion of Sir Walter Scott's brain gave way before the rest.

The CHAIRMAN said that in the absence of Mahomet's brain he did not think they should go on further with the subject. (A laugh.)

The CHAIRMAN said they were indebted to Dr. Ireland for his interesting paper, and the discussion which subsequently took place was also interesting. It was a subject which could scarcely be discussed fully off-hand; and it was one which required a great deal of reading and thinking before they could make up their minds fully in regard to it.

PERIPHERAL IRRITATION IN RELATION TO EPILEPSY.

Dr. JAMES MACLAREN read notes of three cases which illustrated the effect of counter irritation in long standing epilepsy. The first was that of a gentleman in whom there existed a strong neurotic taint, and who became epileptic after a fall on the head. Various remedies were tried, including trepanning over the seat of injury, but none were effectual in curing the disease. After the epilepsy had existed about fifteen years, the gentleman sustained a severe burn of the hip, leading to a slough, the wound consequent on which did not heal for thirteen months. During this time the epilepsy was completely in abeyance, but has returned since the healing of the wound. In another case, the occurrence of malignant sores in the groin led to a cessation of epileptic fits for eight months, in a patient who had been subject to them about every fortnight; and in a third, who took them almost daily, they ceased during the process of healing of a fractured humerus. These cases seemed to Mr. MacLaren to show that the locality of a counter irritation has little to do with its effect on epilepsy, but that this agent acts by causing a shock to, and strain on, the nervous system, thus becoming derivative of nerve force which otherwise would be expended on the convulsions.

MANIA A POTU.

Mr. H. HAYES NEWINGTON's paper on this subject was then read by Mr. JAMES MACLAREN.

Having briefly glanced at delirium tremens, dipsomania, and chronic alcoholic insanity, the writer discussed the subject of his paper. He believed that the term *mania a potu* should be reserved for those cases where a transient and violent mental disturbance is occasioned by a dose of alcohol utterly inadequate to upset a sane person. He considered that *mania a potu* does not necessarily presume that craving for stimulants which marks dipsomania. The patient generally had a brain constitution that would not allow him to be steady, but prompted him to seek pleasure in any available way. Alcohol is by far the readiest to hand, and therefore is first flown to. The small amount of bodily affection marks off a case of this kind from delirium tremens, and the transient nature of the disturbance does the same from dipsomania and chronic alcoholism. He also pointed out the danger of assigning drink as a cause in every case that is reported. He cited examples where insanity clearly preceded the drinking, although a certain amount of colour was given to the symptoms by the quantity of alcohol taken. An insight into the previous morality of the patient is of the utmost service, as *mania a potu* may be said never to attack a person who has led anything like a moral life up to the time of seizure.

Dr. YELLOWLEES said he had listened with great pleasure to the paper, and was glad to agree with much that was contained in it. He was not sure that he would define *mania a potu* in the same manner, and he did not think that he would give all the degraded moral tendencies that the paper had given as symptomatic of the disease. It entirely depended on what they meant by *mania a potu* as to whether he should agree with the paper or not. Certainly some of the cases given were not *mania a potu*, but recurrent dipsomania, of which smoking cigar ends and leaves was a typical instance. His own impression was that *mania a potu* ought to be restricted to that acute transient mania which came instead of delirium tremens. Why it came he did not know, except that it might attack the brain in such a way that it was upset sooner. The acute excitement appeared to be a transient attack of acute mania, with no special or specific delusions. This seemed to him to be distinct from the "insanity of intemperance." The one was an attack which came in place of delirium tremens, but the other never had an acute and violent form at all. A man with the latter thought that men were coming after him at the corner of the street, went upstairs, and belted the door. In the night he was restless, and during the day he did not like to go to his work. That kind of attack

went on till everybody said he was mad, but that was different from the mania. A man recovering, after being a lengthened period in the asylum, might have the suspicious delusions. He thought that the two classes of cases were pretty distinct, the one being characterised by greater excitement than the other. It might be said that it was difficult to draw a definite line, the cause being the same, viz., the influence of the poison on the nervous centres. As to the influence of the hereditary tendency, he entirely agreed with that, and did so the more his attention was called to it. Indeed, the weight of the hereditary influence in such matters impressed him more and more, and he believed there was nothing more hereditary than drinking. *Mania a potu* never attacked a steady person, but in his opinion it might occur in a person whose previous life was orderly and reasonably good, who had recently taken to drinking. He thought that the immoral tendency did not belong to the mania, but to the recurrent cases of dipsomania. He believed that this subject was one in regard to which societies like theirs might exercise no little weight and do a great deal of good.

Dr. TUKE said that this was a subject which demanded special attention from the Association. It was a subject as to which they felt completely powerless when there happened, week after week, an unhappy father or mother asking "What can we do?" He thought that in many cases there was no power in the world that would do any good. Mr. Dalrymple had called his Bill the "Habitual Drunkards' Bill," but Dr. Skae said it should be called the "Insane Drunkards' Bill." Of course every drunkard pricked up his ears when he found he was liable to be confined three times in the course of the year. If that was to be the fact in every manufacturing county, we would have to enlarge our asylums. In the mining districts, a man got a little drink on the Friday, more on the Saturday, still more on the Sunday, and then amused himself on the Monday. That would be 52 times a year, and it could not be what Mr. Dalrymple meant. Many of the provisions were completely unworkable. A man was to be committed and released by a justice of the peace. There could be no possible difficulty, in the multitude of justices of the peace, in getting a discharge, so that the act was unworkable. But it called attention to the facts, and it would not be difficult to re-arouse society, as there was a strong call for such a measure by which insane drunkards could be dealt with. He believed that if the subject were distinctly put before the public a scheme somewhat on the same principle as some of those which obtained in certain states of America might be adopted.

Dr. IRELAND said that this was certainly a very important subject; and that although what were called types of the disease had no real existence, it was quite necessary that they should have certain definitions, and if possible hold to them, especially if legislation should be taken on the subject of drunkenness. As far as he could see the matter, he thought that insanity from drunkenness might be divided into five types—first, delirium tremens, which was generally of a very distinctive type, and could with little difficulty be recognised. The other types were much more difficult. It would not be difficult for a man with experience to find types mentioned by Dr. Newington and Dr. Yellowlees. He objected, in the first place, to *mania a potu*. That was madness from drinking, and included all the types. He must say that intemperance was a word that might be applied to a great many things besides drinking. He had often seen some cases, after a bout of drinking, to have a glancing eye, a dry skin, and a quick pulse, those cases being different from delirium tremens (which was produced in some cases with difficulty, and in others very easily). Those cases formed his second type. The third type was dipsomania, different in this respect, that the dipsomaniac at certain times will not care about drink at all, but at times a desire for drinking came and overpowered him. The fourth type was drunkenness, which was insanity as long as it lasted. He did not know what alcoholic dementia was altogether, but he should think it might be a type too. It might result from dipsomania; it was the result of consumption of alcohol for a long time, which, after various stages, took the form of dementia.

The CHAIRMAN (Dr. Howden) said he thought the last form was the result of brain disease, and was often caused by chronic drinking.

Dr. CAMPBELL said that after what they had heard the question was, what was to be done? Mr. Dalrymple's bill had come to an end, and he thought the Glasgow people were practically trying to do what they could to cure the evil by their new punishment for drunkards; and he also thought it would be well for them as a society to consider what was to be done to the same end. He thought that the classes could be divided into two—long attacks and short attacks. As to the first, the plan might be to retain the patient for a few days. Those afflicted with longer

attacks might be confined in an asylum, though these patients were a thorough nuisance to asylum superintendents.

Dr. SANDERSON said that, practically, the less that medical men had to do with them the better.

The CHAIRMAN said that one way was to restrain a man, and the other to punish him. Why put him in an asylum?

Dr. SANDERSON suggested that a gaol would be more suitable for some persons than an asylum, and it was quite as healthy.

Dr. IRELAND said it might be charged against a man—"You are worrying your wife; your children are growing up uneducated; you are a pest to society. You should be punished by twelve months' imprisonment." He thought that that ground could very well be held.

Dr. TUKE said he believed that would do away with three-fourths of the difficulty.

Dr. YELLOWLEES said that the great practical difficulty was to draw the line where a man ceased to become a blackguard and became a patient. It was a most difficult subject. He thought all would agree that they were no cases for the ordinary asylums.

Dr. IRELAND said he knew one voluntary case that went into a Musselburgh Asylum; but he thought he asked to get out the next day (laughter).

The CHAIRMAN said that the great questions as to insane drinking were how to prevent it coming on, and what were the chances of cure. It was twenty years since he first had to do with asylums and dipsomaniacs, and he only knew of one instance in which he had reason to believe the person got over his drunken habits.

Dr. YELLOWLEES said he knew of only one case of the same kind, and perhaps it was the same one as referred to by the Chairman. He asked whether it was the opinion of the meeting that it was right and wise always to cut off the supply of alcohol from a patient.

Dr. SANDERSON said he thought the patient should get a certain quantity.

Dr. TUKE said he did not see any harm in cutting it right off.

The CHAIRMAN said he thought it might depend a good deal on the condition of the patient. He would not stop it in cases of paralysis or dementia, or in that of a broken down constitution, in which a man would die in the course of twelve months if he was not kept up.

Dr. AITKEN said he was in the habit of stopping drink in all cases of acute drunkenness.

Dr. YELLOWLEES said his opinion was that in every case, except where the bodily condition forbade, and where a man would sink, alcohol should be stopped at once. He never saw that the stoppage of it did any harm.

The CHAIRMAN said there was another aspect of drinking, from which arose great domestic misery, and that was the idea that prevailed amongst many women that a man would get rid of insane drinking when he married. He had known many a man whom the woman knew perfectly to be a drunkard before, but whom she married, relying on her power to cure him. For one, however, that he had known to be cured, he had known very many that went from bad to worse.

Dr. YELLOWLEES said there was another thing to which he would refer, and that was the habit of giving wine to children, which he believed was the cause of a great deal of intemperance.

Dr. IRELAND said there was nothing getting more common than the practice referred to.

Dr. SANDERSON said that there were many young men who took wine and toddy with their fathers. The practice from the beginning was to give the children a "wee sip," and they afterwards, in many cases, became drunkards.

The CHAIRMAN—I think it is a fact that every child dislikes stimulants at first. They require to be educated.

The subject then dropped.

On the suggestion of Dr. CAMPBELL it was agreed to have an earlier preliminary notice of the meetings of the Association, and to advertize in the principal medical papers where the meetings would be held.

On the motion of the CHAIRMAN a cordial vote of thanks was awarded to the President and Fellows of the College of Physicians for the use of their Hall.

A vote of thanks was given to the Chairman, and the proceedings terminated.

WOLF-CHILDREN.

Wolf-children are like sea-serpents. Though scotched and killed, they turn up again and again, each time in fuller vigour and supported by more powerful witnesses. I take no interest in sea-serpents, but the question whether children have ever been suckled, reared, and educated by wolves is one of considerable importance in the treatment of ancient myths. There are, of course, many elements in mythology which are purely miraculous, such as the birth of Achilles, as well as of Helen, and no comparative mythologist would trouble students of natural history with questions on the physical possibility of such events. But there are other ancient stories which, though incredible to us, are in themselves not impossible. Here it is absolutely necessary that the question of their physical possibility should be settled first, before we can place them in the category of the miraculous, and apply to them the proper tests for discovering mythical ingredients. Whether children, carried off by wolves, could be suckled and kept alive in a den for any length of time, is surely a question which students of natural history, and even practical sportsmen, might settle for us once for all, while the documentary evidence in favour of the existence of such wolf-children might exercise the ingenuity of some of our cleverest lawyers. When they have done their work, and not till then, the work of the comparative mythologist will begin. I therefore proceed to put together some of the best authenticated cases of wolf-children, without, however, presuming myself to pronounce any opinion, either adverse or favourable.

The *Journal of the Asiatic Society of Bengal*, one of the most useful publications of the kind (it was founded in 1832, as a continuation of the *Asiatic Researches*, 1788-1832), has lately taken up this subject again. In the *Proceedings* for June, 1873, there is a curious article, "Notes on Children found living with Wolves in the North-Western Provinces and Oudh, by V. Ball, Esq., B.A., Geological Survey of India." The author, after some prefatory remarks, gives the following extracts from a letter received from the Rev. Mr. Erhardt, Superintendent of the Orphanage at Secundra, in reply to his request for information regarding a boy in that institution, who was alleged to have been found living with wolves.

"We have two such boys here, but I fancy you refer to the one who was brought to us on March 5, 1872. He was found by Hindus, who had gone hunting wolves in the neighbourhood of Mynpuri. Had been burnt out of the den, and was brought here with the scars and wounds still on him. In his habits he was a perfect wild animal in every point of view. He drank like a dog, and liked a bone and raw meat better than anything else. He would never remain with the other boys, but hide away in any dark corner. Clothes he never would wear, but tore them up into fine shreds. He was only a few months among us, as he got fever and gave up eating. We kept him for a time by artificial means, but eventually he died.

"The other boy found among wolves is about 13 or 14 years old, and has been here almost six. *He has learnt to make sounds, speak he cannot, but he freely expresses his anger and joy.* Work he will, at times, a little, but he likes eating better. His civilization has progressed so far that he likes raw meat less, though he still will pick up bones and sharpen his teeth on them.

"Neither of the above are new cases, however. At the Lucknow madhouse there was an elderly fellow, only four years ago, and may be alive now, who had been dug out of a wolves' den by a European doctor—when, I forget, but it must be a good number of years ago.

"The facility with which they got along on four feet [hands and feet] is surprising. Before they eat or taste food they smell it, and when they don't like the smell they throw it away."

"Mr. Ball then quotes the well-known story [vide *Ann. and Mag. Nat. Hist.* 1851, p. 163] of the capture of one of these wolf-reared children on the banks of the Gumpiti, who was afterwards taken to Lucknow, and who is in all probability the 'elderly fellow in the Lucknow madhouse' referred to in Mr. Erdhardt's letter.

"The writer then draws attention to a remarkable feature in all the stories, viz., that the wolves are invariably alleged to have communicated much of their natural ferocity, and notably untameable disposition, to their foster-children, and attempts to account for their somewhat un wolf-like treatment of them.

"The author, in conclusion, states that his object in putting forward this account is to bring about a thorough investigation of a subject which, if these stories of wolf-reared children could be substantiated, must prove of considerable physiological interest and importance.

"Mr. Blandford said he could not think the evidence adduced by any means satisfactory, and he would be glad could anyone, endowed with some amount of judicial scepticism visit the Secundra Orphanage and ascertain, as far as possible, on what kind of testimony these accounts of wolf-children really rested. He did not, of course, question that the Superintendent of the Secundra Orphanage wrote in good faith that which he really believed.

"After some further discussion it was agreed, on the motion of the President, that the Secretary should write to the Superintendents of the Secundra Orphanage and the Lucknow Lunatic Asylum, so as to obtain, if possible, further information on the subject."

In the *Proceedings* for August, 1873, the following letter was read from the Rev. Mr. Erdhardt, in reply to a letter of the Secretary, asking for further information as to the fact of the finding of certain children in the company of wolves. Mr. Erdhardt gave no new facts, but stated his very strong belief of one of the children referred to having been burnt out of a wolves' den, such belief being founded on the extremely animal-like and filthy propensities of the child when brought to the asylum, the recent burns on his person, and the testimony of the persons who brought him.

This evidence might probably be set aside if it stood by itself; but it must be recollected that stories of the same kind, and supported by much more business-like witnesses, have appeared in the Indian papers during the last fifty years. The most important witness is the late Colonel Sleeman, a man of unimpeachable character, one of those truly great men whose names are known less than their works. He was Commissioner for putting down Thuggee, and probably knew more of the real life and character of the people of India than any Indian officer. His *Rambles* are still one of the most useful and delightful books, and have been quoted on this very subject of Wolf-children by Grote in his *History of Greece*. He was afterwards Commissioner for Oude, and it is from his book, *Journey through the Kingdom of Oude*, 1858 (vol. i. p. 208), that the following statements are taken. According to Colonel Sleeman, the number of the little victims carried off by wolves to be devoured is so great in some parts of India that people make a living by collecting from the dens of wild animals the gold ornaments with which children in India are always decked out by their parents. It is said even that the people are unwilling to take part in any wholesale destruction of wolves for fear of losing their livelihood.

From a number of cases, more or less fully attested, of wolves taking compassion on a child, and bringing it up together with their own cubs, I select the following:—

"A trooper, sent by the native governor of Chandour to demand payment of some revenue, was passing along the bank of the river about noon, when he saw a large female wolf leave her den, followed by three whelps and a little boy. The boy went on all fours, and when the trooper tried to catch him, he ran as fast as the whelps, and kept up with the old one. They all entered the den, but were dug out by the people with pickaxes, and the boy was secured. He struggled hard to rush in every hole or den they came near. He became alarmed when he saw a grown up person, but tried to fly at children and bite them. He rejected cooked meat with disgust, but delighted in raw flesh and bones, putting them on the ground under his paws like a dog. *They tried to make him speak, but could get nothing from him but an angry growl or snarl.*"

So far, the evidence rests on native witnesses, and might be considered as more or less doubtful. But the boy, after having spent a short time with the Rajah of Harunpoor, was afterwards forwarded to Captain Nicholets, the European officer

commanding the First Regiment of Oude Local Infantry at Sultanpoor. Captain Nicholetts made him over to the charge of his servants, and their accounts completely confirm what was stated before. The wolf-child could devour anything, but preferred raw meat. He once ate half a lamb without any effort. He never kept on any kind of clothing, and a quilt stuffed with cotton, given to him in the cold weather, was torn by him and partly swallowed.

In a letter dated the 17th and 19th of September, 1850, Captain Nicholetts informed Colonel Sleeman that the boy had died in the latter end of August. He had never been known to laugh or smile. He formed no attachment, and *seemed to understand little of what was said to him*. He was about nine years old when found, and lived about three years afterwards. He would run on all fours, but occasionally he walked uprightly. *He never spoke; but when he was hungry, he pointed to his mouth*. Only within a few minutes before his death, the servants relate that he put his hands to his head, and said "it ached," and asked for water: he drank it, and died.

Another instance is related by Colonel Sleeman as having happened at Chupra. In March, 1843, a man and his wife went out to cut their crop of wheat. The woman was leading her boy, who had lately recovered from a severe scald on the knee. While his parents were engaged, the child was carried off by a wolf. In 1849 a wolf with three cubs was seen about ten miles from Chupra, followed by a boy. The boy after a fierce resistance was caught, and was recognized by the poor cultivator's widow, by the scald on the left knee, and three marks of an animal on each side of his back. He would eat nothing but raw flesh, and *could never be brought to speak. He used to mutter something, but never articulated any word distinctly*. The front of his knees and elbows had become hardened from going on all fours with the wolves. In November, 1850, Captain Nicholetts ordered this boy to be sent to Colonel Sleeman, but he got alarmed and ran to a jungle. The evidence therefore of this case rests, to a certain extent, on native authority, and should be accepted with that reservation.

The same applies to a third case, vouched for by the Rajah of Hasunpoor, which adds, however, nothing essential, that the boy, as seen by him in 1843, had actually short hair all over his body, which disappeared when he took to eating salt. He could walk on his legs, *but he could not speak. He could be made to understand signs very well, but would utter sounds like wild animals*.

Another, a fourth case, however, is vouched for again by European witnesses. Colonel Gray, who commanded the First Oude Local Infantry, at Sultanpoor, and Mrs. Gray, and all the officers of the place, saw a boy who in 1843 had been caught while trotting along upon all fours by the side of a wolf. *He could never be made to speak*, and at last ran away into the jungle.

A fifth case rests on the evidence of a respectable landholder of Bankeepoor, in the estate of Hasunpoor (called Zoolfukar Khan). Here too the boy, who had been six years old when carried off, who was ten when rescued, *could not be brought to speak, though it was easy to communicate with him by signs*.

One other statement of a wolf-boy is given by Colonel Sleeman, but as it rests on native evidence only, I will only add that this boy also, when caught, walked on all fours, ate raw meat, but smelt like a wolf. He was treated kindly, but though he learnt to behave better and walk uprightly, *he never could understand or utter a word, though he seemed to understand signs*. One witness states that he uttered the name of a little girl that had been kind to him (Aboodeea), and that he showed some kind of attachment to her; but this sentimental trait is not confirmed by other witnesses.

There are other cases, but those which I have selected are to my mind the best attested. They all share one feature in common, which is of importance to the student of language more even than to the student of mythology, viz., the speechlessness of these wolf-children. It was this fact, more than the bearing of these stories on a problem of mythology, which first made me collect the evidence here produced. For as we are no longer sufficiently wolfish to try the experiment which is said to have been tried by a King of Egypt, by Frederic II., James IV., and one of the Mogul Emperors of India (*Lectures on the Science of Language*, 7th ed. vol. i., p. 394), viz., to keep babies in solitary con-

finement in order to find out what language, if any, they would speak, these cases of children reared by wolves afford the only experimental test for determining whether language is an hereditary instinct or not. Two things have to be decided, and I suppose can be decided by competent judges:—

1. Are these stories physically possible? Will wolves, when they have ceased to suckle, and after they have driven away their own cubs, allow a human cub to remain with them?

2. Are the stories attested by witnesses who were capable of sifting evidence? The further question, whether English gentlemen and officers would wilfully have perverted the truth, need surely not be asked—certainly not in the case of Colonel Sleeman.

The fact that in the mythologies and traditions of people widely separated from each other, and apparently unconnected by language or religion, we meet with stories of children suckled by wolves, should be kept entirely out of sight for the present, for it would only serve to confuse the question before us. Let it first be settled whether the cases adduced are sufficiently attested; secondly, whether there are physically possible, and we shall then be better prepared to say whether they are real and historical elements in the story of Romulus and Remus, and other gods and heroes of antiquity, or whether such stories must be looked upon as simply miraculous, and treated in the same manner as all other mythological deposits, whether of ancient or modern growth.—*Max Müller, Academy, Nov. 7, 1874.*

(*The Professor does not appear to have seen Dr. Ireland's paper on this subject.*)

Obituary.

THOMAS W. SHIELL, M.B.

It is with considerable regret we have to announce the deaths, since our last issue, of two of the Medical Superintendents of the District Hospitals for the Insane in Ireland, both much esteemed members of our Association. The first is that of Thomas W. Shiell, Esq., A.B., M.B., of the Enniscorthy Establishment, who was found dead in his bed, from heart disease, on the 19th of October last, having been in office since the opening of the institution in 1862, and all that time a most efficient and humane performer of his arduous duties. His sudden removal was a cause of the greatest grief to all, both patients and attendants, under his charge, as well as throughout the district, where he was highly and generally respected for his duly appreciated ability and conscientiousness as a public officer. Dr. Shiell, whose age was about 45 years, was married, but without issue; he had been previously an Assistant Surgeon in the Army, and was the son of the late Visiting Physician of the Clonmel Hospital for the Insane. The vacancy thus so unexpectedly caused has been filled up by the transference to it of Joseph Edmundson, Esq., M.D., the Resident Physician and Superintendent of the Castlebar District, at the head of which he had been since 1863, having been previously the Medical Superintendent of the Clonmel Auxiliary District Hospital for the Insane.

RICHARD EATON, M.D.

The other death referred to is that of Richard Eaton, M.D., the Resident Medical Superintendent of the Ballinasloe District Hospital for the Insane, who succumbed on the 7th ultimo, after a short illness, from the effects of pneumonia, at the premature age also of 45 years, the last eleven of which, viz., since 1863, he had been in office at Ballinasloe; always sustaining his responsible position in such a manner as to obtain unmingled praise from the higher authorities, and the love and esteem of all under his immediate professional charge. Prior to his appointment by the Irish Government to Ballinasloe, he had been Assistant Medical Officer for some time at the County Stafford Asylum, his departure from which was much regretted.

Appointments.

ANDREWS, R. J., M.R.C.S.E., L.S.A.L., has been appointed Resident Assistant Medical Officer to the Fisherton House Asylum, Salisbury.

BARTON, J. E., M.R.C.S.E., L.R.C.P. Ed., has been appointed Assistant Medical Officer to the Surrey County Asylum at Brookwood, vice Swain, appointed Medical Superintendent of the Three Counties Asylum at Arlesey, Baldock.

BENHAM, W. T., M.D., M.R.C.S.E. (Assistant Medical Officer and Pathologist to the West Riding Lunatic Asylum, Wakefield), has been appointed Physician-in-Chief to the Chilian Government Lunatic Asylum at Santiago.

BLECKLEY, T. M. (Surgeon-Major, Army Medical Department), C.B., M.A., M.D., L.L.B., of Trinity College, Dublin, L.R., C.S.I., Hon., F.K.O.L.P.I., has been appointed to the medical charge of the Military Lunatic Hospital, Netley, Hants, vice Surgeon-Major D. F. Blatherwick, M.R.C.S., retired on half-pay.

CAMERON, J., M.B., C.M., has been appointed Medical Superintendent to the Argyll and Bute District Lunatic Asylum, Lochgilphead, vice Jas. Rutherford, M.D., appointed to the new Asylum for the Barony District of Glasgow now in course of erection at Lenzie Junction.

DICKSON, HANMER, M.C., Edin., and M.B., has been appointed Senior Resident Clinical Assistant to St. Luke's Hospital, E.C.

EDMUNDSON, J., M.D., L.K.Q.C.P.I., M.R.C.S.E., has been appointed Resident Medical Superintendent of the Enniscorthy District Lunatic Asylum, vice Shiell, deceased.

GILL, H. C., M.R.C.S.E., has been appointed Medical Superintendent of the York Lunatic Asylum, Bootham, York, vice Needham, appointed to the Barnwood House Lunatic Asylum, Gloucester.

MCDIARMID, JOHN, M.B. and C.M. (with honours), University Edinburgh, has been appointed Assistant Physician to the Perth District Asylum, vice R. M. Gunn, M.B. and C.M. (Neill-Arnott Prizeman), Edinburgh University, who held temporary appointment.

MURCHISON, F., M.A., M.B., C.M., has been appointed Assistant Medical Officer to the Crichton Royal Institution, Dumfries, vice Munro, appointed to the Southern Counties Asylum.

PHILLIPS, SUTHERLAND REES, M.D., M.Ch., has been appointed Senior Assistant Medical Officer to the Three Counties Asylum, vice George Mickley, M.A., M.B., M.C., resigned.

ROGERS, E. COULTON, M.R.C.S., Eng. has been appointed Junior Assistant Medical Officer to the Three Counties Asylum, vice A. J. Alliott, B.A. M.B., resigned.

SPENCER, ROBERT, L.R.C.P.L., M.R.C.S. Eng., First Assistant Medical Officer, Kent County Asylum, Maidstone, has been appointed Medical Superintendent of the Kent County Asylum at Chartham Downs, near Canterbury.

SWAIN, EDWARD, L.R.C.P. Ed., M.R.C.S., Eng., has been appointed Medical Superintendent of the Three Counties Asylum, vice William Denne, F.R.C.S., resigned.

WILLIAMS, W., M.B., M.R.C.S.E., has been appointed Medical Superintendent of the North Wales Counties Lunatic Asylum, Denbigh, vice Jones, resigned and superannuated.

At the first Congress of the *Società Freniatria Italiana*, held at Imola, Dr. Lockhart Robertson and Dr. Henry Maudsley were elected Honorary Members of the Society.

SCHEME FOR THE FULL PERFORMANCE OF A POST-MORTEM EXAMINATION OF A SUBJECT WHO HAS DIED OF A NERVOUS DISEASE: with directions for the microscopic examination of nervous tissue.—The following gentlemen constitute the Committee appointed to consider Dr. Batty Tuke's scheme:—Dr. Howden, Dr. Crichton Browne, Dr. Wilks, Dr. Lockhart Clarke, Dr. Savage, and Dr. Batty Tuke.

THE W. AND S. TUKE PRIZE ESSAY.

Some of the descendants of WILLIAM and SAMUEL TUKE (the former of whom proposed the establishment of the York Retreat in 1792, and the latter wrote the "*Description*" of the humane system of treatment commenced there) having placed at the disposal of the Medico-Psychological Association the sum of One Hundred Guineas, the Association offers a prize of this amount for

"The best series of original Cases and Commentary, illustrative of the Somatic Ætiology of various Forms of Insanity, accompanied, when possible, in fatal cases, by reports of post mortem examinations and microscopical preparations—their bearing on the symptoms being pointed out."

Cases not seen by the writer may be cited, but must be distinguished from those actually witnessed by himself.

The W. and S. TUKE PRIZE is open to all without restriction as to country, profession, &c., but the right is reserved to withhold it, should there be no essay of sufficient merit. Essays, to be written in English, and not in the author's handwriting, to be sent with a sealed envelope, bearing the motto of the essay, and containing the name of the writer, to the undersigned, not later than June 30th, 1876. The microscopical preparations, but not the essay, to belong to the Association.

W. RHYS WILLIAMS, M.D.,

HON. SEC.

Bethlem Royal Hospital, London.

Dec., 1874.

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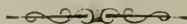
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The Editors are indebted to Dr. A. H. Newth, of the Sussex Asylum, for the compilation of this Index.







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